Tough bonding of hydrogels to diverse non-porous su

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Citation Report

#	Article	IF	CITATIONS
1	Engineering of Tough Double Network Hydrogels. Macromolecular Chemistry and Physics, 2016, 217, 1022-1036.	1.1	123
2	Nanoparticles as Adhesives for Soft Polymeric Materials. Macromolecules, 2016, 49, 3586-3592.	2.2	28
3	A versatile approach towards multi-functional surfaces via covalently attaching hydrogel thin layers. Journal of Colloid and Interface Science, 2016, 484, 60-69.	5.0	36
4	Making metal surfaces strong, resistant, and multifunctional by nanoscale-sculpturing. Nanoscale Horizons, 2016, 1, 467-472.	4.1	19
5	Covalent Bonding of an Electroconductive Hydrogel to Goldâ€Coated Titanium Surfaces via Thiolâ€ene Click Chemistry. Macromolecular Materials and Engineering, 2016, 301, 1423-1429.	1.7	9
6	Fringe instability in constrained soft elastic layers. Soft Matter, 2016, 12, 8899-8906.	1.2	21
7	Highly Stretchable, Strain Sensing Hydrogel Optical Fibers. Advanced Materials, 2016, 28, 10244-10249.	11.1	327
8	Selfâ€Healing Hydrogels. Advanced Materials, 2016, 28, 9060-9093.	11.1	993
9	High toughness fibrillating metal-elastomer interfaces: On the role of discrete fibrils within the fracture process zone. Engineering Fracture Mechanics, 2016, 164, 93-105.	2.0	4
10	Tough bonding of metallic layers to hydrocarbon surfaces by depositing Ag films. RSC Advances, 2016, 6, 72256-72262.	1.7	11
11	Intrinsically stretchable and healable semiconducting polymer for organic transistors. Nature, 2016, 539, 411-415.	13.7	1,030
12	Highly-stretchable 3D-architected Mechanical Metamaterials. Scientific Reports, 2016, 6, 34147.	1.6	116
13	Skin-inspired hydrogel–elastomer hybrids with robust interfaces and functional microstructures. Nature Communications, 2016, 7, 12028.	5.8	696
14	Stretchable Hydrogel Electronics and Devices. Advanced Materials, 2016, 28, 4497-4505.	11.1	550
15	Monitoring the Contact Stress Distribution of Gecko-Inspired Adhesives Using Mechano-Sensitive Surface Coatings. ACS Applied Materials & Interfaces, 2016, 8, 17870-17877.	4.0	18
16	Hydrogel as a bioactive material to regulate stem cell fate. Bioactive Materials, 2016, 1, 39-55.	8.6	226
17	Highly Tolerant and Durable Adhesion between Hydrogels Utilizing Intercalation of Cationic Substituents into Layered Inorganic Compounds. ACS Macro Letters, 2016, 5, 704-708.	2.3	17
18	Molecular Understanding and Structural-Based Design of Polyacrylamides and Polyacrylates as Antifouling Materials. Langmuir, 2016, 32, 3315-3330.	1.6	90

#	Article	IF	CITATIONS
19	Strong, Tough, Stretchable, and Selfâ€Adhesive Hydrogels from Intrinsically Unstructured Proteins. Advanced Materials, 2017, 29, 1604743.	11.1	130
20	Functional Graphene Nanomaterials Based Architectures: Biointeractions, Fabrications, and Emerging Biological Applications. Chemical Reviews, 2017, 117, 1826-1914.	23.0	425
21	Addressing Unmet Clinical Needs with UV Bioadhesives. Biomacromolecules, 2017, 18, 674-682.	2.6	36
22	Hydraulic hydrogel actuators and robots optically and sonically camouflaged in water. Nature Communications, 2017, 8, 14230.	5.8	760
23	Energyâ€Dissipative Matrices Enable Synergistic Toughening in Fiber Reinforced Soft Composites. Advanced Functional Materials, 2017, 27, 1605350.	7.8	116
24	Chemical and Topographical Modification of Polycarbonate Surfaces through Diffusion/Photocuring Processes of Hydrogel Precursors Based on Vinylpyrrolidone. Langmuir, 2017, 33, 1614-1622.	1.6	7
25	Stretchable living materials and devices with hydrogel–elastomer hybrids hosting programmed cells. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2200-2205.	3.3	212
26	The microstructure and micromechanics of the tendon–bone insertion. Nature Materials, 2017, 16, 664-670.	13.3	250
27	Effects of polymer topology and morphology on thermal transport: A molecular dynamics study of bottlebrush polymers. Applied Physics Letters, 2017, 110, .	1.5	46
28	Bioinspired Design of Strong, Tough, and Highly Conductive Polyol-Polypyrrole Composites for Flexible Electronics. ACS Applied Materials & Interfaces, 2017, 9, 5692-5698.	4.0	64
29	Two-component spin-coated Ag/CNT composite films based on a silver heterogeneous nucleation mechanism adhesion-enhanced by mechanical interlocking and chemical grafting. Nanotechnology, 2017, 28, 105607.	1.3	12
30	Glucose‧ensitive Hydrogel Optical Fibers Functionalized with Phenylboronic Acid. Advanced Materials, 2017, 29, 1606380.	11.1	206
31	Tough and tunable adhesion of hydrogels: experiments and models. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 543-554.	1.5	62
32	Contribution of Charges in Polyvinyl Alcohol Networks to Marine Antifouling. ACS Applied Materials & Interfaces, 2017, 9, 18295-18304.	4.0	55
33	Ultrathin Alginate Coatings as Selective Layers for Nanofiltration Membranes with High Performance. ChemSusChem, 2017, 10, 2788-2795.	3.6	35
34	Bioinspired Adhesive Hydrogel Driven by Adenine and Thymine. ACS Applied Materials & Interfaces, 2017, 9, 17645-17652.	4.0	171
35	Advances in engineering hydrogels. Science, 2017, 356, .	6.0	1,836
36	Diffusion and Permeation of Labeled IgG in Grafted Hydrogels. Macromolecules, 2017, 50, 4770-4779.	2.2	25

#	ARTICLE	IF	CITATIONS
37	From intricate to integrated: Biofabrication of articulating joints. Journal of Orthopaedic Research, 2017, 35, 2089-2097.	1.2	35
38	Instant tough bonding of hydrogels for soft machines and electronics. Science Advances, 2017, 3, e1700053.	4.7	359
39	Toward a versatile toolbox for cucurbit[<i>n</i>]urilâ€based supramolecular hydrogel networks through <i>in situ</i> polymerization. Journal of Polymer Science Part A, 2017, 55, 3105-3109.	2.5	20
40	ZnO nanoparticles as an antimicrobial tissue adhesive for skin wound closure. Journal of Materials Chemistry B, 2017, 5, 4535-4541.	2.9	90
41	Recent Advances in Metal ontaining Polymer Hydrogels. Macromolecular Rapid Communications, 2017, 38, 1700109.	2.0	77
42	Molecular grafting to improve adhesion of spray-deposited circuits on polymeric surface for flexible electronics. Journal of Industrial and Engineering Chemistry, 2017, 52, 73-81.	2.9	19
43	Instabilities in confined elastic layers under tension: Fringe, fingering and cavitation. Journal of the Mechanics and Physics of Solids, 2017, 106, 229-256.	2.3	37
44	Ultrastretchable, transparent triboelectric nanogenerator as electronic skin for biomechanical energy harvesting and tactile sensing. Science Advances, 2017, 3, e1700015.	4.7	920
45	Biopolymer-chitosan based supramolecular hydrogels as solid state electrolytes for electrochemical energy storage. Chemical Communications, 2017, 53, 1615-1618.	2.2	91
46	Thiol-ol Chemistry for Grafting of Natural Polymers to Form Highly Stable and Efficacious Antibacterial Coatings. ACS Applied Materials & Interfaces, 2017, 9, 1847-1857.	4.0	44
47	Mussel-inspired hydrogel tissue adhesives for wound closure. RSC Advances, 2017, 7, 47380-47396.	1.7	98
48	Mussel-mimetic hydrogels with defined cross-linkers achieved via controlled catechol dimerization exhibiting tough adhesion for wet biological tissues. Chemical Communications, 2017, 53, 12000-12003.	2.2	76
49	Super Bulk and Interfacial Toughness of Physically Crosslinked Doubleâ€Network Hydrogels. Advanced Functional Materials, 2017, 27, 1703086.	7.8	180
50	A Triblock Copolymer Design Leads to Robust Hybrid Hydrogels for High-Performance Flexible Supercapacitors. ACS Applied Materials & Interfaces, 2017, 9, 36301-36310.	4.0	34
51	Stretchable 3D lattice conductors. Soft Matter, 2017, 13, 7731-7739.	1.2	13
52	Substrate-Independent Ag-Nanoparticle-Loaded Hydrogel Coating with Regenerable Bactericidal and Thermoresponsive Antibacterial Properties. ACS Applied Materials & Interfaces, 2017, 9, 44782-44791.	4.0	85
53	Highly Flexible, Multipixelated Thermosensitive Smart Windows Made of Tough Hydrogels. ACS Applied Materials & Interfaces, 2017, 9, 33100-33106.	4.0	85
54	Design and fabrication of functional hydrogels through interfacial engineering. Chinese Journal of Polymer Science (English Edition), 2017, 35, 1181-1193.	2.0	28

#	ARTICLE	IF	CITATIONS
55	Mussel-inspired electroactive chitosan/graphene oxide composite hydrogel with rapid self-healing and recovery behavior for tissue engineering. Carbon, 2017, 125, 557-570.	5.4	253
56	Highly Elastic, Transparent, and Conductive 3Dâ€Printed Ionic Composite Hydrogels. Advanced Functional Materials, 2017, 27, 1701807.	7.8	162
57	Egg Albumen as a Fast and Strong Medical Adhesive Glue. Advanced Healthcare Materials, 2017, 6, 1700132.	3.9	26
58	Impermeable Robust Hydrogels via Hybrid Lamination. Advanced Healthcare Materials, 2017, 6, 1700520.	3.9	58
59	Designing toughness and strength for soft materials. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8138-8140.	3.3	123
60	Coupling the Leidenfrost effect and elastic deformations to power sustained bouncing. Nature Physics, 2017, 13, 1095-1099.	6.5	43
61	Rough Adhesive Hydrogels (RAd gels) for Underwater Adhesion. ACS Applied Materials & Interfaces, 2017, 9, 27409-27413.	4.0	36
62	Photothermally Triggered Shapeâ€Adaptable 3D Flexible Electronics. Advanced Materials Technologies, 2017, 2, 1700120.	3.0	69
63	Tough adhesives for diverse wet surfaces. Science, 2017, 357, 378-381.	6.0	1,068
64	Triggerable tough hydrogels for gastric resident dosage forms. Nature Communications, 2017, 8, 124.	5.8	106
66	Humidity- and Sunlight-Driven Motion of a Chemically Bonded Polymer Bilayer with Programmable Surface Patterns. ACS Applied Materials & Interfaces, 2017, 9, 41599-41606.	4.0	42
67	Perspectives on Mussel-Inspired Wet Adhesion. Journal of the American Chemical Society, 2017, 139, 10166-10171.	6.6	309
68	"Freezingâ€; morphing, and folding of stretchy tough hydrogels. Journal of Materials Chemistry B, 2017, 5, 5726-5732.	2.9	51
69	Interfacial Engineering of Hierarchically Porous NiTi/Hydrogels Nanocomposites with Exceptional Antibiofouling Surfaces. Advanced Materials, 2017, 29, 1602869.	11.1	56
70	Injectable Pore-Forming Hydrogel Scaffolds for Complex Wound Tissue Engineering: Designing and Controlling Their Porosity and Mechanical Properties. Tissue Engineering - Part B: Reviews, 2017, 23, 183-198.	2.5	35
71	A Musselâ€Inspired Conductive, Selfâ€Adhesive, and Selfâ€Healable Tough Hydrogel as Cell Stimulators and Implantable Bioelectronics. Small, 2017, 13, 1601916.	5.2	543
72	Super-Anticoagulant Heparin-Mimicking Hydrogel Thin Film Attached Substrate Surfaces to Improve Hemocompatibility. Macromolecular Bioscience, 2017, 17, 1600281.	2.1	31
73	Layer-by-layer assembled membranes with immobilized porins. RSC Advances, 2017, 7, 56123-56136.	1.7	11

#	Article	IF	CITATIONS
74	Dielectric Elastomer Sensors. , 0, , .		13
75	Mechanically Reinforced Catechol-Containing Hydrogels with Improved Tissue Cluing Performance. Biomimetics, 2017, 2, 23.	1.5	23
76	Tough, Swelling-Resistant, Self-Healing, and Adhesive Dual-Cross-Linked Hydrogels Based on Polymer–Tannic Acid Multiple Hydrogen Bonds. Macromolecules, 2018, 51, 1696-1705.	2.2	291
77	Bonding dissimilar polymer networks in various manufacturing processes. Nature Communications, 2018, 9, 846.	5.8	209
78	Kirigami enhances film adhesion. Soft Matter, 2018, 14, 2515-2525.	1.2	74
79	Paintable and Rapidly Bondable Conductive Hydrogels as Therapeutic Cardiac Patches. Advanced Materials, 2018, 30, e1704235.	11.1	329
80	Dynamic Interfacial Adhesion through Cucurbit[<i>n</i>]uril Molecular Recognition. Angewandte Chemie, 2018, 130, 8992-8996.	1.6	35
81	Cucurbit[<i>n</i>]uril Supramolecular Hydrogel Networks as Tough and Healable Adhesives. Advanced Functional Materials, 2018, 28, 1800848.	7.8	98
82	Fatigue fracture of nearly elastic hydrogels. Soft Matter, 2018, 14, 3563-3571.	1.2	105
83	Dynamic Interfacial Adhesion through Cucurbit[<i>n</i>]uril Molecular Recognition. Angewandte Chemie - International Edition, 2018, 57, 8854-8858.	7.2	83
84	Thermoresponsive Antibacterial Surfaces Switching from Bacterial Adhesion to Bacterial Repulsion. Macromolecular Materials and Engineering, 2018, 303, 1700590.	1.7	16
85	Chamber/Capsuleâ€Integrated Selfâ€Healing Coating on Glass for Preventing Crack Propagation. Macromolecular Materials and Engineering, 2018, 303, 1800041.	1.7	6
86	A tough, stretchable, and extensively sticky hydrogel driven by milk protein. Polymer Chemistry, 2018, 9, 2617-2624.	1.9	76
87	Super tough magnetic hydrogels for remotely triggered shape morphing. Journal of Materials Chemistry B, 2018, 6, 2713-2722.	2.9	68
88	Ionotactile Stimulation: Nonvolatile Ionic Gels for Human–Machine Interfaces. ACS Omega, 2018, 3, 662-666.	1.6	24
89	Material-stiffening suppresses elastic fingering and fringe instabilities. International Journal of Solids and Structures, 2018, 139-140, 96-104.	1.3	12
90	Localized delivery of miRNAs targets cyclooxygenases and reduces flexor tendon adhesions. Acta Biomaterialia, 2018, 70, 237-248.	4.1	46
91	Gel Chemistry. Lecture Notes in Quantum Chemistry II, 2018, , .	0.3	14

#	Article	IF	CITATIONS
92	Highâ€Strength, Durable Allâ€Silk Fibroin Hydrogels with Versatile Processability toward Multifunctional Applications. Advanced Functional Materials, 2018, 28, 1704757.	7.8	133
93	Polymer Gels. Lecture Notes in Quantum Chemistry II, 2018, , 153-189.	0.3	0
94	Dielectric relaxation of interfacial polarizable molecules in chitosan ice-hydrogel materials. Journal of Materiomics, 2018, 4, 35-43.	2.8	4
95	Stimuli-induced bi-directional hydrogel unimorph actuators. Extreme Mechanics Letters, 2018, 21, 35-43.	2.0	23
96	Interfacing Soft and Hard Materials with Triple-Shape-Memory and Self-Healing Functions. Macromolecules, 2018, 51, 2437-2446.	2.2	37
97	Fatigue of double-network hydrogels. Engineering Fracture Mechanics, 2018, 187, 74-93.	2.0	156
98	Establishing contact between cell-laden hydrogels and metallic implants with a biomimetic adhesive for cell therapy supported implants. Biomedical Materials (Bristol), 2018, 13, 015015.	1.7	9
99	Musselâ€Inspired Adhesive and Conductive Hydrogel with Longâ€Lasting Moisture and Extreme Temperature Tolerance. Advanced Functional Materials, 2018, 28, 1704195.	7.8	788
100	3D Printing of Living Responsive Materials and Devices. Advanced Materials, 2018, 30, 1704821.	11.1	277
101	Biomaterials for articular cartilage tissue engineering: Learning from biology. Acta Biomaterialia, 2018, 65, 1-20.	4.1	427
102	Surface-immobilized and self-shaped DNA hydrogels and their application in biosensing. Chemical Science, 2018, 9, 811-818.	3.7	58
103	Materials and Structures toward Soft Electronics. Advanced Materials, 2018, 30, e1801368.	11.1	445
104	Bioinspired reversible hydrogel adhesives for wet and underwater surfaces. Journal of Materials Chemistry B, 2018, 6, 8064-8070.	2.9	81
105	Electrospun nanofiber blend with improved mechanical and biological performance. International Journal of Nanomedicine, 2018, Volume 13, 7891-7903.	3.3	63
106	System Identification and Closed-Loop Control of a Hydraulically Amplified Self-Healing Electrostatic (HASEL) Actuator. , 2018, , .		11
107	Tough Particleâ€Based Double Network Hydrogels for Functional Solid Surface Coatings. Advanced Materials Interfaces, 2018, 5, 1801018.	1.9	78
108	Strong and tough hydrogels crosslinked by multiâ€functional polymer colloids. Journal of Polymer Science, Part B: Polymer Physics, 2018, 56, 1336-1350.	2.4	60
109	Snap-Buckling Motivated Controllable Jumping of Thermo-Responsive Hydrogel Bilayers. ACS Applied Materials & Interfaces, 2018, 10, 41724-41731.	4.0	90

#	Article	IF	CITATIONS
110	Composite Double-Network Hydrogels To Improve Adhesion on Biological Surfaces. ACS Applied Materials & Interfaces, 2018, 10, 38692-38699.	4.0	81
111	Controlled shape deformation of bilayer films with tough adhesion between nanocomposite hydrogels and polymer substrates. Journal of Materials Chemistry B, 2018, 6, 6629-6636.	2.9	22
112	Equilibrium and Out-of-Equilibrium Adherence of Hydrogels against Polymer Brushes. Macromolecules, 2018, 51, 7556-7566.	2.2	18
113	Tough and Self-Healable Nanocomposite Hydrogels for Repeatable Water Treatment. Polymers, 2018, 10, 880.	2.0	22
114	Surfaceâ€5elective Grafting of Crosslinking Layers on Hydrogel Surfaces via Two Different Mechanisms of Photopolymerization for Siteâ€Controllable Release. Macromolecular Rapid Communications, 2018, 39, e1800144.	2.0	9
115	Thermal stiffening of hydrophobic association hydrogels. Polymer, 2018, 145, 374-381.	1.8	12
116	Quantifying compressive forces between living cell layers and within tissues using elastic round microgels. Nature Communications, 2018, 9, 1878.	5.8	91
117	Hydrogel ionotronics. Nature Reviews Materials, 2018, 3, 125-142.	23.3	1,119
118	A substrate-independent ultrathin hydrogel film as an antifouling and antibacterial layer for a microfiltration membrane anchored <i>via</i> a layer-by-layer thiol–ene click reaction. Journal of Materials Chemistry B, 2018, 6, 3904-3913.	2.9	39
119	A mineral layer as an effective binder to achieve strong bonding between a hydrogel and a solid titanium substrate. Journal of Materials Chemistry B, 2018, 6, 3859-3864.	2.9	12
120	Ideal reversible polymer networks. Soft Matter, 2018, 14, 5186-5196.	1.2	103
121	Instant Strong Adhesive Behavior of Nanocomposite Gels toward Hydrophilic Porous Materials. Langmuir, 2018, 34, 8480-8488.	1.6	11
122	Folding artificial mucosa with cell-laden hydrogels guided by mechanics models. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7503-7508.	3.3	60
123	Laserâ€Enabled Processing of Stretchable Electronics on a Hydrolytically Degradable Hydrogel. Advanced Healthcare Materials, 2018, 7, e1800231.	3.9	26
124	Tough Hydrogels with Fast, Strong, and Reversible Underwater Adhesion Based on a Multiscale Design. Advanced Materials, 2018, 30, e1801884.	11.1	235
125	Polyelectrolyte-based physical adhesive hydrogels with excellent mechanical properties for biomedical applications. Journal of Materials Chemistry B, 2018, 6, 4799-4807.	2.9	40
126	Anti-fatigue adhesive and tough hydrogels regulated by adenine and uracil. Polymer Chemistry, 2018, 9, 4535-4542.	1.9	25
127	Ionic Gels and Their Applications in Stretchable Electronics. Macromolecular Rapid Communications, 2018, 39, e1800246.	2.0	112

#	Article	IF	CITATIONS
128	Calciumâ€Modified Silk as a Biocompatible and Strong Adhesive for Epidermal Electronics. Advanced Functional Materials, 2018, 28, 1800802.	7.8	141
129	The quest for mechanically and biologically functional soft biomaterials via soft network composites. Advanced Drug Delivery Reviews, 2018, 132, 214-234.	6.6	35
130	Recent Developments in Tough Hydrogels for Biomedical Applications. Gels, 2018, 4, 46.	2.1	85
131	From Fibrils to Toughness: Multi-Scale Mechanics of Fibrillating Interfaces in Stretchable Electronics. Materials, 2018, 11, 231.	1.3	5
132	Collagen-Coated Poly(lactide-co-glycolide)/Hydroxyapatite Scaffold Incorporated with DGEA Peptide for Synergistic Repair of Skull Defect. Polymers, 2018, 10, 109.	2.0	19
133	Hydrogel Actuators and Sensors for Biomedical Soft Robots: Brief Overview with Impending Challenges. Biomimetics, 2018, 3, 15.	1.5	164
134	Adhesive Hydrogel System Based on the Intercalation of Anionic Substituents into Layered Double Hydroxides. ACS Applied Materials & Interfaces, 2018, 10, 29925-29932.	4.0	12
135	Underwater adhesive using solid–liquid polymer mixes. Materials Today Chemistry, 2018, 9, 149-157.	1.7	25
136	Preparation and evaluation of β-glucan hydrogel prepared by the radiation technique for drug carrier applications. International Journal of Biological Macromolecules, 2018, 118, 333-339.	3.6	15
137	Stretchable Ionics – A Promising Candidate for Upcoming Wearable Devices. Advanced Materials, 2018, 30, e1704403.	11.1	234
139	Self-curing super-stretchable polymer/microgel complex coacervate gels without covalent bond formation. Chemical Science, 2019, 10, 8832-8839.	3.7	15
140	Cookingâ€Inspired Versatile Design of an Ultrastrong and Tough Polysaccharide Hydrogel through Programmed Supramolecular Interactions. Advanced Materials, 2019, 31, e1902381.	11.1	79
141	Microwave induced mechanical activation of hydrogel dimers. Soft Matter, 2019, 15, 5804-5809.	1.2	3
142	Sewing Hydrogels: Adhesion of Hydrogels Utilizing in Situ Polymerization of Linear Polymers inside Gel Networks. Macromolecules, 2019, 52, 5690-5697.	2.2	22
143	Micropocket hydrogel devices for all-in-one formation, assembly, and analysis of aggregate-based tissues. Biofabrication, 2019, 11, 045013.	3.7	24
144	Polyvinyl alcohol-poly acrylic acid bilayer oral drug delivery systems: A comparison between thin films and inverse double network bilayers. Journal of Biomaterials Applications, 2019, 34, 523-532.	1.2	6
145	Conductive, Tough, Transparent, and Self-Healing Hydrogels Based on Catechol–Metal Ion Dual Self-Catalysis. Chemistry of Materials, 2019, 31, 5625-5632.	3.2	214
146	Improved antibacterial performance using hydrogel-immobilized lysozyme as a catalyst in water. RSC Advances, 2019, 9, 20169-20173.	1.7	12

#	Article	IF	CITATIONS
147	Bio-Inspired Stretchable and Contractible Tough Fiber by the Hybridization of GO/MWNT/Polyurethane. ACS Applied Materials & Interfaces, 2019, 11, 31162-31168.	4.0	20
148	Monolithic Dualâ€Material 3D Printing of Ionic Skins with Longâ€∓erm Performance Stability. Advanced Functional Materials, 2019, 29, 1904716.	7.8	76
149	Interfacial adhesion and water resistance of stainless steel–polyolefin improved by functionalized silane. Polymer Engineering and Science, 2019, 59, 1866-1873.	1.5	6
150	A functionalized chitosan wrinkled hollow sphere containing calcium ions: Efficient adsorption of sodium dodecylbenzenesulfonate (SDBS) from aqueous solutions. Journal of Colloid and Interface Science, 2019, 555, 203-213.	5.0	18
151	Molecular Staples for Tough and Stretchable Adhesion in Integrated Soft Materials. Advanced Healthcare Materials, 2019, 8, e1900810.	3.9	20
152	A Multi-Material Self-Healing Soft Gripper. , 2019, , .		17
153	Tough Bonding, Onâ€Demand Debonding, and Facile Rebonding between Hydrogels and Diverse Metal Surfaces. Advanced Materials, 2019, 31, e1904732.	11.1	98
154	Modeling strategy for dynamic-modal mechanophore in double-network hydrogel composites with self-growing and tailorable mechanical strength. Composites Part B: Engineering, 2019, 179, 107528.	5.9	21
155	Mussel-Inspired Tough Double Network Hydrogel As Transparent Adhesive. ACS Applied Polymer Materials, 2019, 1, 2998-3007.	2.0	31
156	Dry double-sided tape for adhesion of wet tissues and devices. Nature, 2019, 575, 169-174.	13.7	798
157	Adjacent cationic–aromatic sequences yield strong electrostatic adhesion of hydrogels in seawater. Nature Communications, 2019, 10, 5127.	5.8	202
158	Surface-Mediated Stimuli-Responsive Gene Delivery Based on Breath Figure Film Combined with Matrix Metalloproteinase-Sensitive Hydrogel. ACS Biomaterials Science and Engineering, 2019, 5, 6610-6616.	2.6	10
159	Snailâ€Inspired Dry Adhesive with Embedded Microstructures for Enhancement of Energy Dissipation. Advanced Materials Technologies, 2019, 4, 1900316.	3.0	26
160	The Rise of Bioinspired Ionotronics. Advanced Intelligent Systems, 2019, 1, 1900073.	3.3	43
161	Indentation adhesion of hydrogels over a wide range of length and time scales. Extreme Mechanics Letters, 2019, 31, 100540.	2.0	20
162	Fundamentals and Advances in the Adhesion of Polymer Surfaces and Thin Films. Langmuir, 2019, 35, 15914-15936.	1.6	66
163	Hydrogel-mediated semiconductor wafer bonding. Applied Physics Letters, 2019, 115, .	1.5	8
164	Instant, Tough, Noncovalent Adhesion. ACS Applied Materials & Interfaces, 2019, 11, 40749-40757.	4.0	60

#	Article	IF	CITATIONS
165	Asymmetric Janus adhesive tape prepared by interfacial hydrosilylation for wet/dry amphibious adhesion. NPG Asia Materials, 2019, 11, .	3.8	33
166	Fabrication of Tough Hydrogel Composites from Photoresponsive Polymers to Show Double-Network Effect. ACS Applied Materials & Interfaces, 2019, 11, 37139-37146.	4.0	24
167	Polyacrylamide hydrogels. II. elastic dissipater. Journal of the Mechanics and Physics of Solids, 2019, 133, 103737.	2.3	69
168	Hydrogels from natural egg white with extraordinary stretchability, direct-writing 3D printability and self-healing for fabrication of electronic sensors and actuators. Journal of Materials Chemistry A, 2019, 7, 24626-24640.	5.2	68
169	Highly Uniform Activation of Carbon Fiber Reinforced Thermoplastics by Low-Temperature Plasma. ACS Applied Polymer Materials, 2019, 1, 2638-2648.	2.0	11
170	Probing Surface Hydration and Molecular Structure of Zwitterionic and Polyacrylamide Hydrogels. Langmuir, 2019, 35, 13292-13300.	1.6	25
171	3D Bioprinted Human Cortical Neural Constructs Derived from Induced Pluripotent Stem Cells. Journal of Clinical Medicine, 2019, 8, 1595.	1.0	43
172	A Robust Salty Water Adhesive by Counterion Exchange Induced Coacervate. Macromolecular Rapid Communications, 2019, 40, e1800758.	2.0	14
173	Anti-fatigue-fracture hydrogels. Science Advances, 2019, 5, eaau8528.	4.7	305
174	Structural Investigation of a Self-Cross-Linked Chitosan/Alginate Dialdehyde Multilayered Film with in Situ QCM-D and Spectroscopic Ellipsometry. ACS Omega, 2019, 4, 2019-2029.	1.6	29
175	Facile Preparation of Lignin-Based Underwater Adhesives with Improved Performances. ACS Sustainable Chemistry and Engineering, 2019, 7, 4508-4514.	3.2	51
176	Hydrogel bioelectronics. Chemical Society Reviews, 2019, 48, 1642-1667.	18.7	1,267
177	Gluing Interfaces with Soft Nanoparticles. Langmuir, 2019, 35, 7277-7284.	1.6	2
178	Skin-Inspired Surface-Microstructured Tough Hydrogel Electrolytes for Stretchable Supercapacitors. ACS Applied Materials & Interfaces, 2019, 11, 21895-21903.	4.0	80
179	Intrinsically reversible superglues via shape adaptation inspired by snail epiphragm. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13774-13779.	3.3	102
180	The chemistry and engineering of mussel-inspired glue matrix for tissue adhesive and hemostatic. Journal of Industrial and Engineering Chemistry, 2019, 80, 749-756.	2.9	31
181	Electroconductive hydrogels for biomedical applications. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2019, 11, e1568.	3.3	52
182	Semiâ€Crystalline, Threeâ€Segmented Hybrid Gels with Multiple Shapeâ€Memory Effect. Macromolecular Symposia, 2019, 385, 1800164.	0.4	8

#	Article	IF	CITATIONS
183	Multifunctional Glycerol–Water Hydrogel for Biomimetic Human Skin with Resistance Memory Function. ACS Applied Materials & Interfaces, 2019, 11, 21117-21125.	4.0	92
184	Intelligent Liquid Integrated Functional Entity: A Basic Way to Innovate Future Advanced Biomimetic Soft Robotics. Advanced Intelligent Systems, 2019, 1, 1900017.	3.3	11
185	Design Molecular Topology for Wet–Dry Adhesion. ACS Applied Materials & Interfaces, 2019, 11, 24802-24811.	4.0	76
186	Freezing-Tolerant Supramolecular Organohydrogel with High Toughness, Thermoplasticity, and Healable and Adhesive Properties. ACS Applied Materials & Interfaces, 2019, 11, 21184-21193.	4.0	161
187	Muscle-like fatigue-resistant hydrogels by mechanical training. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10244-10249.	3.3	318
188	Materials and structural designs of stretchable conductors. Chemical Society Reviews, 2019, 48, 2946-2966.	18.7	367
189	Fingerprintable Hydrogel from Dual Reversible Cross-Linking Networks with Different Relaxation Times. ACS Applied Materials & amp; Interfaces, 2019, 11, 17925-17930.	4.0	18
190	Polymer Hydrogels and Their Applications Toward Sorptive Removal of Potential Aqueous Pollutants. Polymer Reviews, 2019, 59, 418-464.	5.3	50
191	Strong and Degradable Adhesion of Hydrogels. ACS Applied Bio Materials, 2019, 2, 1781-1786.	2.3	43
192	A viscoelastic adhesive epicardial patch for treating myocardial infarction. Nature Biomedical Engineering, 2019, 3, 632-643.	11.6	156
193	Ductile Polyimide/Reduced Graphene Oxide Nanohybrid Films with Porous Structure Fabricated by a Green Hydrogel Strategy. ACS Applied Polymer Materials, 2019, 1, 914-923.	2.0	8
194	Mussel-Inspired Nanocomposite Hydrogel-Based Electrodes with Reusable and Injectable Properties for Human Electrophysiological Signals Detection. ACS Sustainable Chemistry and Engineering, 2019, 7, 7918-7925.	3.2	83
195	Hydrogel 3D printing with the capacitor edge effect. Science Advances, 2019, 5, eaau8769.	4.7	43
196	Pure PEDOT:PSS hydrogels. Nature Communications, 2019, 10, 1043.	5.8	528
197	Adhesive behavior and detachment mechanisms of bacterial amyloid nanofibers. Npj Computational Materials, 2019, 5, .	3.5	9
198	Optical stereolithography of antifouling zwitterionic hydrogels. Journal of Materials Chemistry B, 2019, 7, 2855-2864.	2.9	20
199	Non-aqueous, tissue compliant carbene-crosslinking bioadhesives. Materials Science and Engineering C, 2019, 100, 215-225.	3.8	16
200	Diffusive Adhesives for Waterâ€Rich Materials: Strong and Tunable Adhesion Beyond the Interface. Chemistry - A European Journal, 2019, 25, 8085-8091.	1.7	2

#	Article	IF	CITATIONS
201	Stretchable and Bioadhesive Supramolecular Hydrogels Activated by a One-Stone–Two-Bird Postgelation Functionalization Method. ACS Applied Materials & Interfaces, 2019, 11, 16328-16335.	4.0	25
202	Strong Wet Adhesion of Tough Transparent Nanocomposite Hydrogels for Fast Tunable Focus Lenses. ACS Applied Materials & Interfaces, 2019, 11, 15071-15078.	4.0	22
203	Improving the adhesion, flexibility, and hemostatic efficacy of a sprayable polymer blend surgical sealant by incorporating silica particles. Acta Biomaterialia, 2019, 90, 205-216.	4.1	36
204	Micrometric Wrinkled Patterns Spontaneously Formed on Hydrogel Thin Films via Argon Plasma Exposure. Molecules, 2019, 24, 751.	1.7	9
205	Tough Adhesion of Nucleobaseâ€Tackifed Gels in Diverse Solvents. Advanced Functional Materials, 2019, 29, 1900450.	7.8	81
206	Multiple Physical Cross-Linker Strategy To Achieve Mechanically Tough and Reversible Properties of Double-Network Hydrogels in Bulk and on Surfaces. ACS Applied Polymer Materials, 2019, 1, 701-713.	2.0	39
207	Wrinkled Polymer Surfaces. , 2019, , .		11
208	Wrinkled Hydrogel Formation by Interfacial Swelling on Thermoplastic Surfaces. , 2019, , 109-141.		4
209	Flexible, sticky, and biodegradable wireless device for drug delivery to brain tumors. Nature Communications, 2019, 10, 5205.	5.8	148
210	Study of effect of specimen thickness, gelatin concentration, normal force and sliding velocity on the stick-slip vibrations of gelatin hydrogel. Journal of Adhesion Science and Technology, 2019, , 1-17.	1.4	1
211	Immunomodulatory application of engineered hydrogels in regenerative medicine. Applied Materials Today, 2019, 14, 126-136.	2.3	34
212	Wrinkled Hydrogel Surfaces with Modulated Surface Chemistry and Topography: Evaluation As Supports for Cell Growth and Transplant. ACS Applied Bio Materials, 2019, 2, 654-664.	2.3	9
213	Tough, Adhesive, Self-Healable, and Transparent Ionically Conductive Zwitterionic Nanocomposite Hydrogels as Skin Strain Sensors. ACS Applied Materials & Interfaces, 2019, 11, 3506-3515.	4.0	309
214	Multifunctional "Hydrogel Skins―on Diverse Polymers with Arbitrary Shapes. Advanced Materials, 2019, 31, e1807101.	11.1	258
215	Determination of critical velocity of gelatin hydrogel sliding on a smooth glass substrate. Materials Research Express, 2019, 6, 035301.	0.8	1
216	Porous scaffolds from droplet microfluidics for prevention of intrauterine adhesion. Acta Biomaterialia, 2019, 84, 222-230.	4.1	60
217	Mechanics of electrophoresis-induced reversible hydrogel adhesion. Journal of the Mechanics and Physics of Solids, 2019, 125, 1-21.	2.3	26
218	Soft and elastic hydrogel-based microelectronics for localized low-voltage neuromodulation. Nature Biomedical Engineering, 2019, 3, 58-68.	11.6	499

#	ARTICLE	IF	CITATIONS
219	Predictions of Thermoâ€Mechanical Properties of Cross‣inked Polyacrylamide Hydrogels Using Molecular Simulations. Advanced Theory and Simulations, 2019, 2, 1800153.	1.3	52
220	Chemically Interconnected Thermotropic Polymers for Transparency-Tunable and Impact-Resistant Windows. ACS Applied Materials & Interfaces, 2019, 11, 5393-5400.	4.0	18
221	Photodetachable Adhesion. Advanced Materials, 2019, 31, e1806948.	11.1	181
222	Fatigue of hydrogels. European Journal of Mechanics, A/Solids, 2019, 74, 337-370.	2.1	206
223	General Principle for Fabricating Natural Globular Protein-Based Double-Network Hydrogels with Integrated Highly Mechanical Properties and Surface Adhesion on Solid Surfaces. Chemistry of Materials, 2019, 31, 179-189.	3.2	102
224	Going Beyond Traditional Applications? The Potential of Hydrogels. Small Methods, 2019, 3, 1800270.	4.6	9
225	Microfabrication of pH-responsive 3D hydrogel structures via two-photon polymerization of high-molecular-weight poly(ethylene glycol) diacrylates. Sensors and Actuators B: Chemical, 2019, 279, 418-426.	4.0	34
226	Adhesion of a rigid punch to a confined elastic layer revisited. Journal of Adhesion, 2019, 95, 44-63.	1.8	17
227	Adhesives to empower a manipulator inspired by the chameleon tongue. Chinese Chemical Letters, 2020, 31, 821-825.	4.8	4
228	When Flexible Organic Fieldâ€Effect Transistors Meet Biomimetics: A Prospective View of the Internet of Things. Advanced Materials, 2020, 32, e1901493.	11.1	136
229	Hydrogel Adhesion: A Supramolecular Synergy of Chemistry, Topology, and Mechanics. Advanced Functional Materials, 2020, 30, 1901693.	7.8	507
230	Ionic Tactile Sensors for Emerging Humanâ€Interactive Technologies: A Review of Recent Progress. Advanced Functional Materials, 2020, 30, 1904532.	7.8	122
231	Super Bulk and Interfacial Toughness of Amylopectin Reinforced PAAm/PVA Doubleâ€Network Hydrogels via Multiple Hydrogen Bonds. Macromolecular Materials and Engineering, 2020, 305, 1900450.	1.7	14
232	Spatially modulated stiffness on hydrogels for soft and stretchable integrated electronics. Materials Horizons, 2020, 7, 203-213.	6.4	70
233	Enhancement of Interfacial Adhesion Using Micro/Nanoscale Hierarchical Cilia for Randomly Accessible Membrane-Type Electronic Devices. ACS Nano, 2020, 14, 118-128.	7.3	10
234	A Novel Doubleâ€Crosslinkingâ€Doubleâ€Network Design for Injectable Hydrogels with Enhanced Tissue Adhesion and Antibacterial Capability for Wound Treatment. Advanced Functional Materials, 2020, 30, 1904156.	7.8	256
235	Hydration and swelling of dry polymers for wet adhesion. Journal of the Mechanics and Physics of Solids, 2020, 137, 103863.	2.3	50
236	Transfer Printing of Electronic Functions on Arbitrary Complex Surfaces. ACS Nano, 2020, 14, 12-20.	7.3	47

#	Article	IF	CITATIONS
237	Surface-grafting polymers: from chemistry to organic electronics. Materials Chemistry Frontiers, 2020, 4, 692-714.	3.2	84
238	Combining multi-scale 3D printing technologies to engineer reinforced hydrogel-ceramic interfaces. Biofabrication, 2020, 12, 025014.	3.7	90
239	Photoâ€Crosslinking Strategy Constructs Adhesive, Superabsorbent, and Tough PVAâ€Based Hydrogel through Controlling the Balance of Cohesion and Adhesion. Macromolecular Materials and Engineering, 2020, 305, 1900623.	1.7	27
240	Reprogrammable 3D Shaping from Phase Change Microstructures in Elastic Composites. ACS Applied Materials & Interfaces, 2020, 12, 4014-4021.	4.0	6
241	Highly Porous, Biocompatible Tough Hydrogels, Processable via Gel Fiber Spinning and 3D Gel Printing. Advanced Materials Interfaces, 2020, 7, 1901770.	1.9	15
242	Emerging intraoral biosensors. Journal of Materials Chemistry B, 2020, 8, 3341-3356.	2.9	11
243	Passive and wireless, implantable glucose sensing with phenylboronic acid hydrogel-interlayer RF resonators. Biosensors and Bioelectronics, 2020, 151, 112004.	5.3	53
244	Multiple Physical Bonds to Realize Highly Tough and Self-Adhesive Double-Network Hydrogels. ACS Applied Polymer Materials, 2020, 2, 1031-1042.	2.0	39
245	Asymmetric complementary interface for directional adhesion. International Journal of Solids and Structures, 2020, 191-192, 110-121.	1.3	1
246	Cooperative dynamics of heuristic swelling and inhibitive micellization in double-network hydrogels by ionic dissociation of polyelectrolyte. Polymer, 2020, 186, 122039.	1.8	16
247	Specialty Tough Hydrogels and Their Biomedical Applications. Advanced Healthcare Materials, 2020, 9, e1901396.	3.9	120
248	Ultra-thin free-floating carbon nanotube/gold nanoparticle hybrid film prepared with self-assembly protein of α-synuclein. Sensors and Actuators B: Chemical, 2020, 305, 127514.	4.0	6
249	The effect of water content on the elastic modulus and fracture energy of hydrogel. Extreme Mechanics Letters, 2020, 35, 100617.	2.0	65
250	Emerging Soft Conductors for Bioelectronic Interfaces. Advanced Functional Materials, 2020, 30, 1907184.	7.8	70
251	Engineering Biomaterials and Approaches for Mechanical Stretching of Cells in Three Dimensions. Frontiers in Bioengineering and Biotechnology, 2020, 8, 589590.	2.0	21
252	Skin-Inspired Hydrogel-Elastomer Hybrid Forms a Seamless Interface by Autonomous Hetero-Self-Healing. ACS Applied Polymer Materials, 2020, 2, 5352-5357.	2.0	25
253	Ionotronic Luminescent Fibers, Fabrics, and Other Configurations. Advanced Materials, 2020, 32, e2005545.	11.1	63
254	Enhanced Solarâ€Drivenâ€Heating and Tough Hydrogel Electrolyte by Photothermal Effect and Hofmeister Effect. Small, 2020, 16, e2004091.	5.2	21

#	Article	IF	CITATIONS
255	Antibacterial Zwitterionic Polyelectrolyte Hydrogel Adhesives with Adhesion Strength Mediated by Electrostatic Mismatch. ACS Applied Materials & Interfaces, 2020, 12, 46816-46826.	4.0	77
256	Hydrogelâ^'Solid Hybrid Materials for Biomedical Applications Enabled by Surfaceâ€Embedded Radicals. Advanced Functional Materials, 2020, 30, 2004599.	7.8	26
257	A chemo-mechanical fracture model for the welding interface of vitrimers. Mechanics of Materials, 2020, 148, 103516.	1.7	5
258	Mussel-Inspired Self-Adhesive, Antidrying, and Antifreezing Poly(acrylic acid)/Bentonite/Polydopamine Hybrid Glycerol-Hydrogel and the Sensing Application. ACS Applied Polymer Materials, 2020, 2, 3094-3106.	2.0	67
259	Caudicles in vandoid orchids: A carotenoid-based soft material with unique properties. Acta Biomaterialia, 2020, 113, 478-487.	4.1	2
260	Self-healing hydrogels. , 2020, , 369-423.		1
261	A Universal Strategy for Tough Adhesion of Wet Soft Material. Advanced Functional Materials, 2020, 30, 2003207.	7.8	113
262	PVDF-based shape memory materials. , 2020, , 247-274.		2
263	Engineering an Injectable Tough Tissue Adhesive through Nanocellulose Reinforcement. ACS Applied Bio Materials, 2020, 3, 9093-9100.	2.3	8
264	Supramolecular adhesive materials from smallâ€molecule selfâ€assembly. SmartMat, 2020, 1, e1012.	6.4	79
265	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
266	3D-Printed Membranes with a Zwitterionic Hydrogel Coating for More Robust Oil–Water Separation. Industrial & Engineering Chemistry Research, 2020, 59, 21058-21065.	1.8	27
267	Hydrogel soft robotics. Materials Today Physics, 2020, 15, 100258.	2.9	216
268	High- <i>k</i> , Ultrastretchable Self-Enclosed Ionic Liquid-Elastomer Composites for Soft Robotics and Flexible Electronics. ACS Applied Materials & amp; Interfaces, 2020, 12, 37561-37570.	4.0	51
269	Biomaterial surface modification for underwater adhesion. Smart Materials in Medicine, 2020, 1, 77-91.	3.7	39
270	Highly conductive, stretchable, and breathable epidermal electrode based on hierarchically interactive nano-network. Nanoscale, 2020, 12, 16053-16062.	2.8	26
271	Inkâ€Based Additive Nanomanufacturing of Functional Materials for Humanâ€Integrated Smart Wearables. Advanced Intelligent Systems, 2020, 2, 2000117.	3.3	17
272	Unconventional Device and Material Approaches for Monolithic Biointegration of Implantable Sensors and Wearable Electronics. Advanced Materials Technologies, 2020, 5, .	3.0	37

#	Article	IF	CITATIONS
273	A Universal Coating Strategy for Controllable Functionalized Polymer Surfaces. Advanced Functional Materials, 2020, 30, 2004633.	7.8	40
274	Glycerol-Stabilized Algae–Mussel-Inspired Adhesives for Underwater Bonding. Industrial & Engineering Chemistry Research, 2020, 59, 15255-15263.	1.8	13
275	Advanced Materials to Enhance Central Nervous System Tissue Modeling and Cell Therapy. Advanced Functional Materials, 2020, 30, 2002931.	7.8	7
276	Dendrites in Znâ€Based Batteries. Advanced Materials, 2020, 32, e2001854.	11.1	601
277	Bioinspired Hydrogel–Polymer Hybrids with a Tough and Antifatigue Interface via One-Step Polymerization. ACS Applied Materials & Interfaces, 2020, 12, 51036-51043.	4.0	20
278	Highly stretchable, self-adhesive, biocompatible, conductive hydrogels as fully polymeric strain sensors. Journal of Materials Chemistry A, 2020, 8, 20474-20485.	5.2	147
279	Advances and opportunities in development of deformable organic electrochemical transistors. Journal of Materials Chemistry C, 2020, 8, 15067-15078.	2.7	25
280	Conducting polymer hydrogels for electrically responsive drug delivery. Journal of Controlled Release, 2020, 328, 192-209.	4.8	67
281	Totally transparent hydrogel-based subdural electrode with patterned salt bridge. Biomedical Microdevices, 2020, 22, 57.	1.4	9
282	Understanding the Toughening Mechanism of Silane Coupling Agents in the Interfacial Bonding in Steel Fiber-Reinforced Cementitious Composites. ACS Applied Materials & Interfaces, 2020, 12, 44163-44171.	4.0	46
283	Stimuli-responsive functional materials for soft robotics. Journal of Materials Chemistry B, 2020, 8, 8972-8991.	2.9	118
284	Cellulose nanocrystals for gelation and percolation-induced reinforcement of a photocurable poly(vinyl alcohol) derivative. Soft Matter, 2020, 16, 8602-8611.	1.2	7
285	Molecular Understanding and Design of Porous Polyurethane Hydrogels with Ultralow-Oil-Adhesion for Oil–Water Separation. ACS Applied Materials & Interfaces, 2020, 12, 56530-56540.	4.0	27
286	Rapidly Visible-Light-Mediated Photogelations for One-Step Engineering Multifunctional Tough Hydrogel Tubes. ACS Macro Letters, 2020, 9, 1681-1686.	2.3	18
287	A Solventâ€Exchange Strategy to Regulate Noncovalent Interactions for Strong and Antiswelling Hydrogels. Advanced Materials, 2020, 32, e2004579.	11.1	177
288	Bioinspired Selfâ€Healing Human–Machine Interactive Touch Pad with Pressureâ€Sensitive Adhesiveness on Targeted Substrates. Advanced Materials, 2020, 32, e2004290.	11.1	210
289	Programmable Spiral and Helical Deformation Behaviors of Hydrogel-Based Bi-Material Beam Structures. International Journal of Structural Stability and Dynamics, 2020, 20, 2041010.	1.5	12
290	Protein Gel Phase Transition: Toward Superiorly Transparent and Hysteresisâ€Free Wearable Electronics. Advanced Functional Materials, 2020, 30, 1910080.	7.8	30

#	Αρτιςι ε	IF	CITATIONS
1 ¹¹ 291	Locally coupled electromechanical interfaces based on cytoadhesion-inspired hybrids to identify muscular excitation-contraction signatures. Nature Communications, 2020, 11, 2183.	5.8	47
292	Hydrophilic/Hydrophobic Heterogeneity Anti-Biofouling Hydrogels with Well-Regulated Rehydration. ACS Applied Materials & Interfaces, 2020, 12, 25316-25323.	4.0	65
293	Synergy of noncovalent interlink and covalent toughener for tough hydrogel adhesion. Extreme Mechanics Letters, 2020, 39, 100797.	2.0	10
294	Performance characterization of ionic-hydrogel based strain sensors. Science China Technological Sciences, 2020, 63, 923-930.	2.0	12
295	Switchable adhesion of soft composites induced by a magnetic field. Soft Matter, 2020, 16, 5806-5811.	1.2	24
296	Adhesive, Conductive, Self-Healing, and Antibacterial Hydrogel Based on Chitosan–Polyoxometalate Complexes for Wearable Strain Sensor. ACS Applied Polymer Materials, 2020, 2, 2541-2549.	2.0	73
297	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
298	Chemically Coupled Interfacial Adhesion in Multimaterial Printing of Hydrogels and Elastomers. ACS Applied Materials & Interfaces, 2020, 12, 31002-31009.	4.0	22
299	Instant tough bioadhesive with triggerable benign detachment. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 15497-15503.	3.3	210
300	Scaling dynamics of globule-to-coil phase transition in double-network hydrogel with ultra-high stretchable strength. Smart Materials and Structures, 2020, 29, 085050.	1.8	2
301	Ultrafast gelling using sulfonated lignin-Fe3+ chelates to produce dynamic crosslinked hydrogel/coating with charming stretchable, conductive, self-healing, and ultraviolet-blocking properties. Chemical Engineering Journal, 2020, 396, 125341.	6.6	130
302	Chondroitin sulfate hydrogels based on electrostatic interactions with enhanced adhesive properties: exploring the bulk and interfacial contributions. Soft Matter, 2020, 16, 6128-6137.	1.2	22
303	Soft and ion-conducting hydrogel artificial tongue for astringency perception. Science Advances, 2020, 6, eaba5785.	4.7	74
304	Skin-Interfaced Sensors in Digital Medicine: from Materials to Applications. Matter, 2020, 2, 1414-1445.	5.0	134
305	Fatigue-resistant adhesion I. Long-chain polymers as elastic dissipaters. Extreme Mechanics Letters, 2020, 39, 100813.	2.0	29
306	Strength and toughness of adhesion of soft materials measured in lap shear. Journal of the Mechanics and Physics of Solids, 2020, 143, 103988.	2.3	44
307	Graphene-Quantum-Dot-Mediated Semiconductor Bonding: A Route to Optoelectronic Double Heterostructures and Wavelength-Converting Interfaces. Journal of Carbon Research, 2020, 6, 28.	1.4	5
308	Physical Organohydrogels With Extreme Strength and Temperature Tolerance. Frontiers in Chemistry, 2020, 8, 102.	1.8	17

#	Article	IF	CITATIONS
309	A bioinspired hydrogen bond crosslink strategy toward toughening ultrastrong and multifunctional nanocomposite hydrogels. Journal of Materials Chemistry B, 2020, 8, 4002-4015.	2.9	88
310	Strong adhesion of wet conducting polymers on diverse substrates. Science Advances, 2020, 6, eaay5394.	4.7	141
311	Fabrication of Bioinspired Hydrogels: Challenges and Opportunities. Macromolecules, 2020, 53, 2769-2782.	2.2	185
312	Adhesive Biocomposite Electrodes on Sweaty Skin for Long-Term Continuous Electrophysiological Monitoring. , 2020, 2, 478-484.		107
313	Temperature/near-infrared light-responsive conductive hydrogels for controlled drug release and real-time monitoring. Nanoscale, 2020, 12, 8679-8686.	2.8	49
314	High-Strength Albumin Hydrogels With Hybrid Cross-Linking. Frontiers in Chemistry, 2020, 8, 106.	1.8	12
315	Lanthanide-Doped Upconversion Nanoparticle-Cross-Linked Double-Network Hydrogels with Strong Bulk/Interfacial Toughness and Tunable Full-Color Fluorescence for Bioimaging and Biosensing. ACS Applied Nano Materials, 2020, 3, 2774-2786.	2.4	25
316	The Potential of Electrospinning/Electrospraying Technology in the Rational Design of Hydrogel Structures. Macromolecular Materials and Engineering, 2020, 305, 2000285.	1.7	29
317	Flexible and wearable sensor based on graphene nanocomposite hydrogels. Smart Materials and Structures, 2020, 29, 075027.	1.8	53
318	Advances in Materials for Soft Stretchable Conductors and Their Behavior under Mechanical Deformation. Polymers, 2020, 12, 1454.	2.0	11
319	Highly Tough, Stretchable, Selfâ€Adhesive and Strainâ€5ensitive DNAâ€Inspired Hydrogels for Monitoring Human Motion. Chemistry - A European Journal, 2020, 26, 11604-11613.	1.7	13
320	Conjugated polymer with dynamic and thermoreversible hydrogen bonding on the backbone. Polymer, 2020, 203, 122787.	1.8	17
321	Wearable piezoelectric mass sensor based on pH sensitive hydrogels for sweat pH monitoring. Scientific Reports, 2020, 10, 10854.	1.6	50
322	A fast UV-curable PU-PAAm hydrogel with mechanical flexibility and self-adhesion for wound healing. RSC Advances, 2020, 10, 4907-4915.	1.7	33
323	A multi-functional reversible hydrogel adhesive. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 593, 124622.	2.3	48
324	Deterministic Self-Morphing of Soft-Stiff Hybridized Polymeric Films for Acoustic Metamaterials. ACS Applied Materials & Interfaces, 2020, 12, 13378-13385.	4.0	23
325	Fatigue-resistant adhesion of hydrogels. Nature Communications, 2020, 11, 1071.	5.8	187
326	3D printing of hydrogels: Rational design strategies and emerging biomedical applications. Materials Science and Engineering Reports, 2020, 140, 100543.	14.8	494

ARTICLE IF CITATIONS # \hat{l}^2 -cyclodextrin- soy soluble polysaccharide based core-shell bionanocomposites hydrogel for vitamin E 327 5.6 36 swelling controlled delivery. Food Hydrocolloids, 2020, 104, 105751. Catechol-functionalized hydrogels: biomimetic design, adhesion mechanism, and biomedical 18.7 applications. Chemical Society Reviews, 2020, 49, 433-464. Bioactive Poreâ€Forming Bone Adhesives Facilitating Cell Ingrowth for Fracture Healing. Advanced 329 11.1 54 Materials, 2020, 32, e1907491. Seawater-enhanced tough agar/poly(<i>N</i>-isopropylacrylamide)/clay hydrogel for anti-adhesion 1.2 and oil/water separation. Soft Matter, 2020, 16, 2199-2207. A Colorimetric Artificial Olfactory System for Airborne Improvised Explosive Identification. Advanced 331 11.1 47 Materials, 2020, 32, e1907043. Hydrogel machines. Materials Today, 2020, 36, 102-124. 8.3 333 Autonomic perspiration in 3D-printed hydrogel actuators. Science Robotics, 2020, 5, . 9.9 121 A self-healing, robust adhesion, multiple stimuli-response hydrogel for flexible sensors. Soft Matter, 334 1.2 2020, 16, 2238-2248. Multifunctional Polymer-Free Mineral Plastic Adhesives Formed by Multiple Noncovalent Bonds. ACS 335 4.0 9 Applied Materials & amp; Interfaces, 2020, 12, 7403-7410. Stretchable, self-healing and tissue-adhesive zwitterionic hydrogels as strain sensors for wireless 6.4 273 monitoring of organ motions. Materials Horizons, 2020, 7, 1872-1882. In situ covalent bonding in polymerization to construct robust hydrogel lubrication coating on surface of silicone elastomer. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 337 2.3 15 2020, 599, 124753. Review on surface modification of nanocarriers to overcome diffusion limitations: An enzyme 1.8 immobilization aspect. Biochemical Engineering Journal, 2020, 158, 107574. Two-stage thiol-based click reactions for the preparation and adhesion of hydrogels. Polymer 339 1.9 6 Chemistry, 2020, 11, 2986-2994. Musselâ€Inspired Hydrogels for Selfâ€Adhesive Bioelectronics. Advanced Functional Materials, 2020, 30, 340 1909954. Photochemistry of bioinspired dityrosine crosslinking. Journal of Materials Science and Technology, 341 5.6 24 2021, 63, 182-191. An ultra-stretchable glycerol-ionic hybrid hydrogel with reversible gelid adhesion. Journal of 342 5.0 Colloid and Interface Science, 2021, 582, 187-200. Anti-freezing, resilient and tough hydrogels for sensitive and large-range strain and pressure 343 6.6 215 sensors. Chemical Engineering Journal, 2021, 403, 126431. 344 Functional hydrogel coatings. National Science Review, 2021, 8, nwaa254. 191

ARTICLE IF CITATIONS # 3D-printed multifunctional materials enabled by artificial-intelligence-assisted fabrication 345 23.3 140 technologies. Nature Reviews Materials, 2021, 6, 27-47. Nanocomposite adhesive hydrogels: from design to application. Journal of Materials Chemistry B, 2021, 346 9, 585-593. Renormalized <scp>Floryâ€Huggins</scp> lattice model of physicochemical kinetics and dynamic complexity in selfâ€healing doubleâ€network hydrogel. Journal of Applied Polymer Science, 2021, 138, 347 7 1.3 50304. Thermo-sensitive hydrogel on anodized titanium surface to regulate immune response. Surface and 348 Coatings Technology, 2021, 405, 126624. A review of biomimetic scaffolds for bone regeneration: Toward a cellâ€free strategy. Bioengineering 349 3.9 69 and Translational Medicine, 2021, 6, e10206. Mussel foot protein inspired tough tissue-selective underwater adhesive hydrogel. Materials Horizons, 2021, 8, 997-1007. 6.4 124 Biomimetic Hydrophilic Islands for Integrating Elastomers and Hydrogels of Regulable Curved 351 2.0 9 Profiles. ACS Applied Electronic Materials, 2021, 3, 668-675. Intrinsically adhesive, highly sensitive and temperature tolerant flexible sensors based on double 6.6 network organohydrogels. Chemical Engineering Journal, 2021, 413, 127544. Adhesive and tough hydrogels: from structural design to applications. Journal of Materials 353 2.9 31 Chemistry B, 2021, 9, 5954-5966. 354 Thermochemical Shape Memory Polymer Blends and Composites for Robots., 2021, , . Viscoelastic Silk Fibroin Hydrogels with Tunable Strength. ACS Biomaterials Science and Engineering, 355 21 2.6 2021, 7, 636-647. Hydrogel: Diversity of Structures and Applications in Food Science. Food Reviews International, 2021, 4.3 37, 313-372. Natural Biopolymer-Based Biocompatible Conductors for Stretchable Bioelectronics. Chemical 357 23.0 199 Reviews, 2021, 121, 2109-2146. Self-healing, highly elastic and amphiphilic silicone-based polyurethane for antifouling coatings. Journal of Materials Chemistry B, 2021, 9, 1384-1394. Advance of Electroconductive Hydrogels for Biomedical Applications in Orthopedics. Advances in 359 1.0 7 Materials Science and Engineering, 2021, 2021, 1-13. Functionalized Elastomers for Intrinsically Soft and Biointegrated Electronics. Advanced Healthcare 36 Materials, 2021, 10, e2002105. Tissue adhesive hydrogel bioelectronics. Journal of Materials Chemistry B, 2021, 9, 4423-4443. 361 2.9 129 Tissue-adhesive and highly mechanical double-network hydrogel for cryopreservation and sustained release of anti-cancer drugs. Smart Materials in Medicine, 2021, 2, 229-236.

#	Article	IF	CITATIONS
363	Transforming non-adhesive hydrogels to reversible tough adhesives <i>via</i> mixed-solvent-induced phase separation. Journal of Materials Chemistry A, 2021, 9, 9706-9718.	5.2	43
364	Gelatin-based composite hydrogels with biomimetic lubrication and sustained drug release. Friction, 2022, 10, 232-246.	3.4	23
365	Sprayâ€Painted Hydrogel Coating for Marine Antifouling. Advanced Materials Technologies, 2021, 6, 2000911.	3.0	49
366	Poly(vinyl alcohol) Hydrogels with Broadâ€Range Tunable Mechanical Properties via the Hofmeister Effect. Advanced Materials, 2021, 33, e2007829.	11.1	292
367	A Multifunctional Origami Patch for Minimally Invasive Tissue Sealing. Advanced Materials, 2021, 33, e2007667.	11.1	77
368	Ultraâ€Conformable Ionic Skin with Multiâ€Modal Sensing, Broadâ€Spectrum Antimicrobial and Regenerative Capabilities for Smart and Expedited Wound Care. Advanced Science, 2021, 8, 2004627.	5.6	52
369	Fatigue-resistant adhesion II: Swell tolerance. Extreme Mechanics Letters, 2021, 43, 101182.	2.0	8
370	Molecular design, synthesis strategies and recent advances of hydrogels for wound dressing applications. Chinese Journal of Chemical Engineering, 2021, 30, 308-320.	1.7	23
371	Switchable adhesion between hydrogels by wrinkling. Extreme Mechanics Letters, 2021, 43, 101193.	2.0	31
372	Starch-based adhesive hydrogel with gel-point viscoelastic behavior and its application in wound sealing and hemostasis. Journal of Materials Science and Technology, 2021, 63, 228-235.	5.6	45
373	3D Printing Method for Tough Multifunctional Particle-Based Double-Network Hydrogels. ACS Applied Materials & Interfaces, 2021, 13, 13714-13723.	4.0	50
374	Silicone/epoxy hybrid resins with tunable mechanical and interfacial properties for additive manufacture of soft robots. Applied Materials Today, 2021, 22, 100979.	2.3	16
375	Material Adhesion through Direct Covalent Bond Formation Assisted by Noncovalent Interactions. ACS Applied Polymer Materials, 2021, 3, 2189-2196.	2.0	7
376	A Spiderâ€ 5 ilkâ€Inspired Wet Adhesive with Supercold Tolerance. Advanced Materials, 2021, 33, e2007301.	11.1	59
377	An electrically conductive silver–polyacrylamide–alginate hydrogel composite for soft electronics. Nature Electronics, 2021, 4, 185-192.	13.1	269
379	Review of interface tailoring techniques and applications to improve insulation performance. High Voltage, 2022, 7, 12-31.	2.7	31
380	Recent Advances in Injectable Dual Crosslinking Hydrogels for Biomedical Applications. Macromolecular Bioscience, 2021, 21, e2100109.	2.1	30
381	In Situ Preparation of Mechanically Enhanced Hydrogel via Dispersion Polymerization in Aqueous Solution. Macromolecular Rapid Communications, 2021, 42, e2100028.	2.0	4

#	Article	IF	CITATIONS
382	Soft Materials by Design: Unconventional Polymer Networks Give Extreme Properties. Chemical Reviews, 2021, 121, 4309-4372.	23.0	472
383	Engineering Hydrogel Adhesion for Biomedical Applications via Chemical Design of the Junction. ACS Biomaterials Science and Engineering, 2021, 7, 4048-4076.	2.6	89
384	Liquid-state thermocells: Opportunities and challenges for low-grade heat harvesting. Joule, 2021, 5, 768-779.	11.7	113
385	Fatigue Damage–Resistant Physical Hydrogel Adhesion. Frontiers in Robotics and AI, 2021, 8, 666343.	2.0	5
386	Tough Adhesion of Freezing- and Drying-Tolerant Transparent Nanocomposite Organohydrogels. ACS Applied Materials & Interfaces, 2021, 13, 21822-21830.	4.0	25
387	Conductive Hydrogelâ€Based Electrodes and Electrolytes for Stretchable and Selfâ€Healable Supercapacitors. Advanced Functional Materials, 2021, 31, 2101303.	7.8	178
388	An Intrinsicallyâ€Adhesive Family of Injectable and Photoâ€Curable Hydrogels with Functional Physicochemical Performance for Regenerative Medicine. Macromolecular Rapid Communications, 2021, 42, e2000660.	2.0	25
389	Bioinspired tough gel sheath for robust and versatile surface functionalization. Science Advances, 2021, 7, .	4.7	44
390	Swell induced stress in a hydrogel coating. Acta Mechanica Sinica/Lixue Xuebao, 2021, 37, 797-802.	1.5	4
391	Local conservation law of rubber elasticity in hydrogel networks undergoing microphase separation and toughening. Polymer, 2021, 222, 123656.	1.8	5
392	Strong, Non-specific Adhesion Using C-Lectin Heterotrimers in a Molluscan Defensive Secretion. Integrative and Comparative Biology, 2021, 61, 1440-1449.	0.9	4
393	Recent advances in wet adhesives: Adhesion mechanism, design principle and applications. Progress in Polymer Science, 2021, 116, 101388.	11.8	251
394	Applications of Bioinspired Reversible Dry and Wet Adhesives: A Review. Frontiers in Mechanical Engineering, 2021, 7, .	0.8	11
395	Robust Hydrogel Adhesive with Dual Hydrogen Bond Networks. Molecules, 2021, 26, 2688.	1.7	13
396	Intelligent Soft Surgical Robots for Nextâ€Generation Minimally Invasive Surgery. Advanced Intelligent Systems, 2021, 3, 2100011.	3.3	55
397	Silica Aerogels with Self-Reinforced Microstructure for Bioinspired Hydrogels. Langmuir, 2021, 37, 5923-5931.	1.6	10
398	Recent progress in polymer hydrogel bioadhesives. Journal of Polymer Science, 2021, 59, 1312-1337.	2.0	77
399	Rational Design of a High‧trength Tough Hydrogel from Fundamental Principles. Macromolecular Chemistry and Physics, 2021, 222, 2100064.	1.1	8

#	Article	IF	CITATIONS
400	Dendrimer-based Hydrogels with Controlled Drug Delivery Property for Tissue Adhesion. Chinese Journal of Polymer Science (English Edition), 2021, 39, 1421-1430.	2.0	16
401	Adhesion-Induced Instability Regulates Contact Mechanics of Soft Thin Elastic Films. ACS Applied Materials & Interfaces, 2021, 13, 21994-21999.	4.0	4
402	Underwater Communication and Optical Camouflage Ionogels. Advanced Materials, 2021, 33, e2008479.	11.1	269
403	Additively Manufactured Gradient Porous Ti–6Al–4V Hip Replacement Implants Embedded with Cell-Laden Gelatin Methacryloyl Hydrogels. ACS Applied Materials & Interfaces, 2021, 13, 22110-22123.	4.0	56
404	Advanced Materials and Assembly Strategies for Wearable Biosensors: A Review. , 0, , .		2
405	Multifaceted Design and Emerging Applications of Tissue Adhesives. Advanced Materials, 2021, 33, e2007663.	11.1	117
406	Photoinitiator-grafted polymer chains for integrating hydrogels with various materials. Cell Reports Physical Science, 2021, 2, 100463.	2.8	14
407	Enhancing Tissue Adhesion and Osteoblastic Differentiation of MC3T3â€E1 Cells on Poly(aryl ether) Tj ETQq1 1 (Bioscience, 2021, 21, e2100078.).784314 ı 2.1	rgBT /Overloo 9
408	Skin temperature-triggered, debonding-on-demand sticker for a self-powered mechanosensitive communication system. Matter, 2021, 4, 1962-1974.	5.0	54
409	In Situ Photo-Cross-Linking Hydrogel Accelerates Diabetic Wound Healing through Restored Hypoxia-Inducible Factor 1-Alpha Pathway and Regulated Inflammation. ACS Applied Materials & Interfaces, 2021, 13, 29363-29379.	4.0	53
410	Tissue adhesion with tough hydrogels: Experiments and modeling. Mechanics of Materials, 2021, 157, 103800.	1.7	16
412	Stimulation Modulates Adhesion and Mechanics of Hydrogel Adhesives. Langmuir, 2021, 37, 7097-7106.	1.6	12
413	Adaptive and multifunctional hydrogel hybrid probes for long-term sensing and modulation of neural activity. Nature Communications, 2021, 12, 3435.	5.8	130
414	Fabricating hydrogels to mimic biological tissues of complex shapes and high fatigue resistance. Matter, 2021, 4, 1935-1946.	5.0	78
415	Poly(ionic liquid)s Containing Alkoxy Chains and Bis(trifluoromethanesulfonyl)imide Anions as Highly Adhesive Materials. Advanced Materials, 2021, 33, e2100962.	11.1	76
416	Ionotronic Tough Adhesives with Intrinsic Multifunctionality. ACS Applied Materials & Interfaces, 2021, 13, 37849-37861.	4.0	16
417	Polymer Network Editing of Elastomers for Robust Underwater Adhesion and Tough Bonding to Diverse Surfaces. ACS Applied Materials & amp; Interfaces, 2021, 13, 36527-36537.	4.0	11
418	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

ARTICLE IF CITATIONS # Boost Tendon/Ligament Repair With Biomimetic and Smart Cellular Constructs. Frontiers in 419 2.0 4 Bioengineering and Biotechnology, 2021, 9, 726041. Theoretical Limits in Detachment Strength for Axisymmetric Bi-Material Adhesives. Journal of Applied 420 1.1 Mechanics, Transactions ASME, 2021, 88, . Ultrafast, tough, and adhesive hydrogel based on hybrid photocrosslinking for articular cartilage 421 4.7 88 repair in water-filled arthroscopy. Science Advances, 2021, 7, . Materials Perspectives for Self-Powered Cardiac Implantable Electronic Devices toward Clinical 422 5.9 Translation. Accounts of Materials Research, 2021, 2, 739-750. Rapid and coagulation-independent haemostatic sealing by a paste inspired by barnacle glue. Nature 423 11.6 146 Biomedical Engineering, 2021, 5, 1131-1142. Completely foldable electronics based on homojunction polymer transistors and logics. Science 424 4.7 Advances, 2021, 7, . Tough, Resilient, Adhesive, and Anti-Freezing Hydrogels Cross-Linked with a Macromolecular 425 4.0 43 Cross-Linker for Wearable Strain Sensors. ACS Applied Materials & amp; Interfaces, 2021, 13, 42052-42062. Bioinspired Color-Changing Photonic Polymer Coatings Based on Three-Dimensional Blue Phase Liquid 426 4.0 67 Crystal Networks. ACS Applied Materials & amp; Interfaces, 2021, 13, 41102-41111. A mobile magnetic pad with fast light-switchable adhesion capabilities. Bioinspiration and Biomimetics, 427 1.5 11 2021, 16, 055005. Strong, Ultrastretchable Hydrogelâ€Based Multilayered Soft Actuator Composites Enhancing 1.6 Biologically Inspired Pumping Systems. Advanced Engineering Materials, 2021, 23, 2100121. Self-contained soft electrofluidic actuators. Science Advances, 2021, 7, . 429 4.723 Skin-like hydrogel devices for wearable sensing, soft robotics and beyond. IScience, 2021, 24, 103174. 430 103 Dismantlable Adhesion Interface Featuring a Thermo/Photocleavable Molecular Layer. Advanced 431 1.6 9 Engineering Materials, 2022, 24, 2100823. Crosstalkâ€Free, Stretchingâ€Insensitive Sensor Based on Archâ€Bridge Architecture for Tactile Mapping with Parallel Addressing Strategy toward Millionâ€Scaleâ€Pixels Processing. Advanced Science, 2021, 8, 5.6 e2101876. Recent advances in hydrogel-based anti-infective coatings. Journal of Materials Science and 433 40 5.6 Technology, 2021, 85, 169-183. A molecular design approach towards elastic and multifunctional polymer electronics. Nature 434 5.8 Communications, 2021, 12, 5701. Antiliquid-Interfering, Antibacteria, and Adhesive Wearable Strain Sensor Based on Superhydrophobic 435 4.0 50 and Conductive Composite Hydrogel. ACS Applied Materials & amp; Interfaces, 2021, 13, 46022-46032. Adhesive and cohesive force matters in deformable batteries. Npj Flexible Electronics, 2021, 5, . 5.1

#	Article	IF	CITATIONS
437	Controllable peeling of an elastic strip on a viscoelastic substrate. Engineering Fracture Mechanics, 2021, 256, 107990.	2.0	3
438	Enhance the debonding resistance of hydrogel by large-scale bridging. Journal of the Mechanics and Physics of Solids, 2021, 155, 104570.	2.3	18
439	Biomass-based superhydrophobic coating with tunable colors and excellent robustness. Carbohydrate Polymers, 2021, 270, 118401.	5.1	11
440	Controlled release of dopamine coatings on titanium bidirectionally regulate osteoclastic and osteogenic response behaviors. Materials Science and Engineering C, 2021, 129, 112376.	3.8	16
441	Design of a metamaterial film with excellent conformability and adhesion for bandage substrates. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 124, 104799.	1.5	7
442	Challenges and recent trends with the development of hydrogel fiber for biomedical applications. Chemosphere, 2022, 287, 131956.	4.2	18
443	A Sub-Micron-Thick stretchable adhesive layer for the lamination of arbitrary elastomeric substrates with enhanced adhesion stability. Chemical Engineering Journal, 2022, 429, 132250.	6.6	10
444	A highly transparent ionogel with strength enhancement ability for robust bonding in an aquatic environment. Materials Horizons, 2021, 8, 2057-2064.	6.4	73
445	Polymeric Tissue Adhesives. Chemical Reviews, 2021, 121, 11336-11384.	23.0	306
446	A self-healing, recyclable, and degradable fire-retardant gelatin-based biogel coating for green buildings. Soft Matter, 2021, 17, 5231-5239.	1.2	21
447	Super-stretchable and extreme temperature-tolerant supramolecular-polymer double-network eutectogels with ultrafast <i>in situ</i> adhesion and flexible electrochromic behaviour. Materials Horizons, 2021, 8, 2520-2532.	6.4	60
448	Scaling Behavior of Fracture Properties of Tough Adhesive Hydrogels. ACS Macro Letters, 2021, 10, 180-185.	2.3	20
449	Robust Underwater Adhesives Based on Dynamic Hydrophilic and Hydrophobic Moieties to Diverse Surfaces. ACS Applied Materials & Interfaces, 2021, 13, 3435-3444.	4.0	24
450	Multiâ€Functional Hydrogelâ€Interlayer RF/NFC Resonators as a Versatile Platform for Passive and Wireless Biosensing. Advanced Electronic Materials, 2020, 6, 1901311.	2.6	33
451	Multifunctional Clay/PNIPAM Hydrogel Incorporating H x MoO 3 Plasmonic Quantum Dot. Energy and Environmental Materials, 2020, 3, 192-201.	7.3	8
452	A Solventâ€Free and Waterâ€Resistant Dipole–Dipole Interactionâ€Based Super Adhesive. Macromolecular Rapid Communications, 2021, 42, 2100010.	2.0	8
453	Micro- and nanotechnology for neural electrode-tissue interfaces. Biosensors and Bioelectronics, 2020, 170, 112645.	5.3	42
454	EML webinar overview: Extreme mechanics of soft materials for merging human–machineâ€< intelligence. Extreme Mechanics Letters, 2020, 39, 100784.	2.0	9

#	Article	IF	CITATIONS
455	Understanding complex dynamics of interfacial reconstruction in polyampholyte hydrogels undergoing mechano-chemo-electrotaxis coupling. Journal Physics D: Applied Physics, 2021, 54, 085301.	1.3	8
456	A dynamic model of complexly mechanoresponsive chain-poly[n]-catenations in double-network polyampholyte hydrogels. Smart Materials and Structures, 2021, 30, 015027.	1.8	2
457	All-Solid Ionic Eye. Journal of Applied Mechanics, Transactions ASME, 2021, 88, .	1.1	13
458	Trends in Epidermal Stretchable Electronics for Noninvasive Long-term Healthcare Applications. International Journal of Automation and Smart Technology, 2017, 7, 37-52.	0.4	10
459	Strong, Ultrastretchable Hydrogelâ€Based Multilayered Soft Actuator Composites Enhancing Biologically Inspired Pumping Systems. Advanced Engineering Materials, 2021, 23, 2170038.	1.6	0
460	Composites of functional polymers: Toward physical intelligence using flexible and soft materials. Journal of Materials Research, 2022, 37, 2-24.	1.2	6
461	Development of Conductive Hydrogels for Fabricating Flexible Strain Sensors. Small, 2022, 18, e2101518.	5.2	188
462	Printable Tough Adhesive for Instant Fatigueâ€Resistant Bonding of Diverse Surfaces. Advanced Functional Materials, 2022, 32, 2107732.	7.8	11
463	Predictably Engineering the Viscoelastic Behavior of Dynamic Hydrogels via Correlation with Molecular Parameters. Advanced Materials, 2021, 33, e2104460.	11.1	24
464	A Facile Bonding Material to Enable Interconnection among complex Surfaces through AgNWs Aerogel. , 2021, , .		0
465	A Tissueâ€Like Soft Allâ€Hydrogel Battery. Advanced Materials, 2022, 34, e2105120.	11.1	65
466	Adhesion strategies for heterogeneous soft materials – A review. Engineering Research Express, 0, , .	0.8	1
467	Smart and Biomimetic 3D and 4D Printed Composite Hydrogels: Opportunities for Different Biomedical Applications. Biomedicines, 2021, 9, 1537.	1.4	49
468	Tough, adhesive, self-healing, fully physical crosslinked κ-CC-K+/pHEAA double-network ionic conductive hydrogels for wearable sensors. Polymer, 2021, 236, 124321.	1.8	30
469	Robust, anti-freezing and conductive bonding of chitosan-based double-network hydrogels for stable-performance flexible electronic. Carbohydrate Polymers, 2022, 276, 118753.	5.1	46
470	Integration of bubble phobicity, gas sensing and friction alleviation into a versatile MoS2/SnO2/CNF heterostructure by an impressive, simple and effective method. Nanoscale, 2020, 12, 18629-18639.	2.8	2
471	Imparting conformational memory for material adhesion. Materials Horizons, 2022, 9, 675-687.	6.4	1
472	Dissecting Biological and Synthetic Soft–Hard Interfaces for Tissue-Like Systems. Chemical Reviews, 2022–122–5233-5276	23.0	32

#	Article	IF	CITATIONS
473	A strong underwater adhesive that totally cured in water. Chemical Engineering Journal, 2022, 431, 133460.	6.6	28
475	Biomimetic functional hydrogel particles with enhanced adhesion characteristics for applications in fracture conformance control. Journal of Industrial and Engineering Chemistry, 2022, 106, 482-491.	2.9	11
476	Biomedical Application, Patent Repository, Clinical Trial and Regulatory Updates on Hydrogel: An Extensive Review. Gels, 2021, 7, 207.	2.1	32
477	Shaping the future of robotics through materials innovation. Nature Materials, 2021, 20, 1582-1587.	13.3	65
478	Polymer Adhesion: Seeking New Solutions for an Old Problem. Macromolecules, 2021, 54, 10617-10644.	2.2	59
479	Adhesive anastomosis for organ transplantation. Bioactive Materials, 2022, 13, 260-268.	8.6	16
480	Recent Advances on Designs and Applications of Hydrogel Adhesives. Advanced Materials Interfaces, 2022, 9, 2101038.	1.9	27
481	Injectable Doubleâ€Crosslinked Adhesive Hydrogels with High Mechanical Resilience and Effective Energy Dissipation for Joint Wound Treatment. Advanced Functional Materials, 2022, 32, 2109687.	7.8	81
482	Design principles for creating synthetic underwater adhesives. Chemical Society Reviews, 2021, 50, 13321-13345.	18.7	57
483	Stress Dissipation Encoded Silk Fibroin Electrode for the Athleteâ€Beneficial Silk Bioelectronics. Advanced Science, 2022, 9, e2105420.	5.6	11
484	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
485	Seamless and robust alginate/gelatin coating on Ti-6Al-4V as a gap filling interphase. Applied Surface Science, 2022, 581, 152393.	3.1	1
486	Supramolecular Adhesive Hydrogels for Tissue Engineering Applications. Chemical Reviews, 2022, 122, 5604-5640.	23.0	238
487	Mucosaâ€Like Conformal Hydrogel Coating for Aqueous Lubrication. Advanced Materials, 2022, 34, e2108848.	11.1	37
488	A Universal Strategy for Growing a Tenacious Hydrogel Coating from a Sticky Initiation Layer. Advanced Materials, 2022, 34, e2108889.	11.1	45
489	Double Networks of Liquid-Crystalline Elastomers with Enhanced Mechanical Strength. Macromolecules, 2022, 55, 810-820.	2.2	17
490	A hyperbranched polymer elastomer-based pressure sensitive adhesive. Journal of Materials Chemistry A, 2022, 10, 1257-1269.	5.2	25
491	Strong conductive hybrid hydrogel electrode based on inorganic hybrid crosslinking. Colloid and Polymer Science, 2022, 300, 111-124.	1.0	11

#	Article	IF	CITATIONS
492	Recent Advances in Intelligent Wearable Medical Devices Integrating Biosensing and Drug Delivery. Advanced Materials, 2022, 34, e2108491.	11.1	64
493	Chemical adhesion of a hydrogel on an elastomer surface enabling directionally-bendable actuators. Journal of Materials Chemistry C, 0, , .	2.7	4
494	An antibacterial biomimetic adhesive with strong adhesion in both dry and underwater situations. Journal of Materials Chemistry B, 2022, 10, 1063-1076.	2.9	7
495	Environment tolerant, adaptable and stretchable organohydrogels: preparation, optimization, and applications. Materials Horizons, 2022, 9, 1356-1386.	6.4	75
496	3D printing of tough hydrogels based on metal coordination with a two-step crosslinking strategy. Journal of Materials Chemistry B, 2022, 10, 2126-2134.	2.9	7
498	Super Adhesive MXeneâ€based Nanocomposite Hydrogel with Selfâ€Healable and Conductivity Properties via Radiation Synthesis. Advanced Engineering Materials, 2022, 24, 2101692.	1.6	8
499	Doubleâ€Network Hydrogel Armored Decellularized Porcine Pericardium as Durable Bioprosthetic Heart Valves. Advanced Healthcare Materials, 2022, 11, e2102059.	3.9	16
500	Electrically Programmable Interfacial Adhesion for Ultrastrong Hydrogel Bonding. Advanced Materials, 2022, 34, e2108820.	11.1	28
501	An off-the-shelf bioadhesive patch for sutureless repair of gastrointestinal defects. Science Translational Medicine, 2022, 14, eabh2857.	5.8	67
502	Comprehensive evaluation of self-healing polyampholyte gel particles for the severe leakoff control of drilling fluids. Journal of Petroleum Science and Engineering, 2022, 212, 110249.	2.1	14
503	Stretchable, self-adhesive, conductive, anti-freezing sodium polyacrylate-based composite hydrogels for wearable flexible strain sensors. Reactive and Functional Polymers, 2022, 172, 105197.	2.0	15
504	Synergistic enhancement of hydrogel adhesion via tough chemical bonding and physical entanglements. Polymer Testing, 2022, 107, 107482.	2.3	3
505	Stiffness Variable Polymers Comprising Phaseâ€Changing Sideâ€Chains: Material Syntheses and Application Explorations. Advanced Materials, 2022, 34, e2109798.	11.1	24
506	Hydrogel tapes for fault-tolerant strong wet adhesion. Nature Communications, 2021, 12, 7156.	5.8	122
507	Tough, Instant, and Repeatable Adhesion of Selfâ€Healable Elastomers to Diverse Soft and Hard Surfaces. Advanced Science, 2022, 9, e2105742.	5.6	24
508	Radiation synthesis and characterization of polymeric wet adhesives for attracting and trapping insects. International Journal of Materials Research, 2022, 113, 101-111.	0.1	1
509	Visible-Light-Mediated Nano-biomineralization of Customizable Tough Hydrogels for Biomimetic Tissue Engineering. ACS Nano, 2022, 16, 4734-4745.	7.3	26
510	Tough Mechanically Interlocked Transparent Interface of Hydrogel and Elastomer for Biomedical Applications. Macromolecular Materials and Engineering, 0, , 2100931.	1.7	ο

#	ARTICLE	IF	CITATIONS
511	Effective Antifogging Coating from Hydrophilic/Hydrophobic Polymer Heteronetwork. Advanced Science, 2022, 9, e2200072.	5.6	38
512	Tough Hydrogel Coating on Silicone Rubber with Improved Antifouling and Antibacterial Properties. ACS Applied Polymer Materials, 2022, 4, 3462-3472.	2.0	9
513	Research Progress on Hydrogel–Elastomer Adhesion. Materials, 2022, 15, 2548.	1.3	6
514	Simple Preparation of a Waterborne Polyurethane Crosslinked Hydrogel Adhesive With Satisfactory Mechanical Properties and Adhesion Properties. Frontiers in Chemistry, 2022, 10, 855352.	1.8	5
515	Engineered Living Hydrogels. Advanced Materials, 2022, 34, e2201326.	11.1	75
516	Reversibly Stretchable Organohydrogel-Based Soft Electronics with Robust and Redox-Active Interfaces Enabled by Polyphenol-Incorporated Double Networks. ACS Applied Materials & Interfaces, 2022, 14, 12583-12595.	4.0	14
517	Dendrite Issues for Zinc Anodes in a Flexible Cell Configuration for Zincâ€Based Wearable Energyâ€Storage Devices. Angewandte Chemie, 2022, 134, .	1.6	10
518	Flexible, stretchable, and transparent InGaN/GaN multiple quantum wells/polyacrylamide hydrogel-based light emitting diodes. Nano Research, 2022, 15, 5492-5499.	5.8	11
519	Enhancing the Understanding of Soil Nitrogen Fate Using a 3D-Electrospray Sensor Roll Casted with a Thin-Layer Hydrogel. Environmental Science & Technology, 2022, 56, 4905-4914.	4.6	14
520	Dendrite Issues for Zinc Anodes in a Flexible Cell Configuration for Zincâ€Based Wearable Energyâ€Storage Devices. Angewandte Chemie - International Edition, 2022, 61, .	7.2	50
521	Effect of water content on physical adhesion of polyacrylamide hydrogels. Polymer, 2022, 246, 124730.	1.8	27
522	Self-Adhesive Dry Ionic Conductors Based on Supramolecular Deep Eutectic Polymers. Chemistry of Materials, 2022, 34, 3736-3743.	3.2	31
523	A biomechanical testing method to assess tissue adhesives for annulus closure. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 129, 105150.	1.5	1
524	A Printable and Conductive Yield-Stress Fluid as an Ultrastretchable Transparent Conductor. Research, 2021, 2021, 9874939.	2.8	9
525	Soft Bioelectronics Based on Nanomaterials. Chemical Reviews, 2022, 122, 5068-5143.	23.0	72
526	Effect of Polymer Molecular Mass and Structure on the Mechanical Properties of Polymer–Glass Hybrids. ACS Omega, 2022, 7, 786-792.	1.6	3
527	Dual-network hydrogel based on ionic nano-reservoir for gastric perforation sealing. Science China Materials, 2022, 65, 827-835.	3.5	11
528	Opto-Chemical pH Detection of Myocardial Ischaemia Using Fluorescent Hydrogels. IEEE Sensors Journal, 2022, 22, 10901-10909.	2.4	1

#	Article	IF	CITATIONS
529	Polyvinyl Alcohol/Graphene Oxide Conductive Hydrogels via the Synergy of Freezing and Salting Out for Strain Sensors. Sensors, 2022, 22, 3015.	2.1	27
530	Mixed displacement–pressure-phase field framework for finite strain fracture of nearly incompressible hyperelastic materials. Computer Methods in Applied Mechanics and Engineering, 2022, 394, 114933.	3.4	15
531	Extreme environment-adaptable and fast self-healable eutectogel triboelectric nanogenerator for energy harvesting and self-powered sensing. Nano Energy, 2022, 98, 107284.	8.2	60
534	Lignin-Inspired Hydrogel Matrixes with Adhesion and Toughness for All-Hydrogel Supercapacitors. SSRN Electronic Journal, 0, , .	0.4	0
535	Hydrogels for underwater adhesion: adhesion mechanism, design strategies and applications. Journal of Materials Chemistry A, 2022, 10, 11823-11853.	5.2	74
536	Stable Zinc Anodes Enabled by a Zincophilic Polyanionic Hydrogel Layer. Advanced Materials, 2022, 34, e2202382.	11.1	168
537	Ultra‣trong and Proton Conductive Aquaâ€Based Adhesives from Facile Blending of Polyvinyl Alcohol and Tungsten Oxide Clusters. Advanced Functional Materials, 2022, 32, .	7.8	20
538	Thermocells-enabled low-grade heat harvesting: challenge, progress, and prospects. Materials Today Energy, 2022, 27, 101032.	2.5	19
539	Flexible and Stretchable Electrically Conductive Polymer Materials for Physical Sensing Applications. Polymer Reviews, 2023, 63, 67-126.	5.3	31
540	Breathable and Skinâ€Conformal Electronics with Hybrid Integration of Microfabricated Multifunctional Sensors and Kirigami‣tructured Nanofibrous Substrates. Advanced Functional Materials, 2022, 32, .	7.8	20
541	Wireless soft millirobots for climbing three-dimensional surfaces in confined spaces. Science Advances, 2022, 8, .	4.7	68
542	Gelation of highly entangled hydrophobic macromolecular fluid for ultrastrong underwater in situ fast tissue adhesion. Science Advances, 2022, 8, .	4.7	31
543	A review of 4D printing: Materials, structures, and designs towards the printing of biomedical wearable devices. Bioprinting, 2022, 27, e00217.	2.9	19
544	Superaerophobic Polyethyleneimine Hydrogels for Improving Electrochemical Hydrogen Production by Promoting Bubble Detachment. Advanced Energy Materials, 2022, 12, .	10.2	41
545	Osteichthyes skin-inspired tough and sticky composite hydrogels for dynamic adhesive dressings. Composites Part B: Engineering, 2022, 241, 110010.	5.9	23
546	Cassette-like peeling system for testing the adhesion of soft-to-rigid assemblies. International Journal of Solids and Structures, 2022, 251, 111751.	1.3	3
547	Molecular Mechanism Underpinning Stable Mechanical Performance and Enhanced Conductivity of Air-Aged Ionic Conductive Elastomers. Macromolecules, 2022, 55, 4665-4674.	2.2	4
548	A NURBS-based inverse analysis of swelling induced morphing of thin stimuli-responsive polymer gels. Computer Methods in Applied Mechanics and Engineering, 2022, 397, 115049.	3.4	10

#	Article	IF	CITATIONS
549	Short <i>vs.</i> long chains competition during " <i>grafting to</i> ―process from melt. Polymer Chemistry, 2022, 13, 3904-3914.	1.9	6
550	Design of hydrogel-based wearable EEG electrodes for medical applications. Journal of Materials Chemistry B, 2022, 10, 7260-7280.	2.9	25
551	Fabrication and Functionality Integration Technologies for Smallâ€Scale Soft Robots. Advanced Materials, 2022, 34, .	11.1	13
552	Highly stretchable, strain-stiffening, self-healing ionic conductors for wearable sensors. Chemical Engineering Journal, 2022, 449, 137633.	6.6	15
553	Natural polymerâ€based adhesive hydrogel for biomedical applications. Biosurface and Biotribology, 2022, 8, 69-94.	0.6	4
554	Study of adhesive self-degrading gel for wellbore sealing. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 651, 129567.	2.3	10
555	Intrinsically Stretchable Poly(3,4-ethylenedioxythiophene) Conducting Polymer Film for Flexible Electronics. Polymers, 2022, 14, 2340.	2.0	2
556	A photo-triggering double cross-linked adhesive, antibacterial, and biocompatible hydrogel for wound healing. IScience, 2022, 25, 104619.	1.9	14
557	An extreme toughening mechanism for soft materials. Soft Matter, 2022, 18, 5742-5749.	1.2	15
558	A biomimetic elastomeric robot skin using electrical impedance and acoustic tomography for tactile sensing. Science Robotics, 2022, 7, .	9.9	61
559	Strong Interfaces Enable Efficient Load Transfer for Strong, Tough, and Impact-Resistant Hydrogel Composites. ACS Applied Materials & Interfaces, 2022, 14, 33797-33805.	4.0	10
560	Robust Hydrogel Adhesion by Harnessing Bioinspired Interfacial Mineralization. Small, 2022, 18, .	5.2	19
561	Cartilage-bone inspired the construction of soft-hard composite material with excellent interfacial binding performance and low friction for artificial joints. Friction, 2023, 11, 1177-1193.	3.4	7
562	Janus mucosal dressing with a tough and adhesive hydrogel based on synergistic effects of gelatin, polydopamine, and nano-clay. Acta Biomaterialia, 2022, 149, 126-138.	4.1	29
563	ROS-responsive hydrogel coating modified titanium promotes vascularization and osteointegration of bone defects by orchestrating immunomodulation. Biomaterials, 2022, 287, 121683.	5.7	28
564	Tough, aorta-inspired soft composites. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	12
565	Oneâ€Pot Synthesis of Polyelectrolyteâ€Triazine Gels Using Cation– <i>Ï€</i> Interactions and Multiple Hydrogen Bonds for Adjustable Interfacial Adhesion. Macromolecular Rapid Communications, 2022, 43, .	2.0	3
566	Stability of hydrogel adhesion enabled by siloxane bonds. Engineering Fracture Mechanics, 2022, 271, 108662.	2.0	3

#	Article	IF	CITATIONS
567	Functional and versatile colorful superhydrophobic nanocellulose-based membrane with high durability, high-efficiency oil/water separation and oil spill cleanup. Surface and Coatings Technology, 2022, 445, 128714.	2.2	36
568	Lignin-containing hydrogel matrices with enhanced adhesion and toughness for all-hydrogel supercapacitors. Chemical Engineering Journal, 2022, 450, 138025.	6.6	22
569	Experiments, Modelling, and Simulations for a Gel Bonded to a Rigid Substrate. Journal of Elasticity, 0, , .	0.9	1
570	Broadband light management in hydrogel glass for energy efficient windows. Frontiers of Optoelectronics, 2022, 15, .	1.9	2
571	Tough Adhesive, Antifreezing, and Antidrying Natural Globulin-Based Organohydrogels for Strain Sensors. ACS Applied Materials & Interfaces, 2022, 14, 39299-39310.	4.0	19
572	Successive Redoxâ€Reactionâ€Triggered Interface Radical Polymerization for Growing Hydrogel Coatings on Diverse Substrates. Angewandte Chemie - International Edition, 2022, 61, .	7.2	18
573	Random encounters and amoeba locomotion drive the predation of <i>Listeria monocytogenes</i> by <i>Acanthamoeba castellanii</i> . Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	3
574	Extreme Extensibility in Physically Cross-Linked Nanocomposite Hydrogels Leveraging Dynamic Polymer–Nanoparticle Interactions. Macromolecules, 2022, 55, 7498-7511.	2.2	4
575	Successive Redoxâ€Reactionâ€Triggered Interface Radical Polymerization for Growing Hydrogel Coatings on Diverse Substrates. Angewandte Chemie, 2022, 134, .	1.6	1
577	Hybrid polymer networks of carbene and thiol ene. European Polymer Journal, 2022, 178, 111502.	2.6	3
578	Manufacturing and post-engineering strategies of hydrogel actuators and sensors: From materials to interfaces. Advances in Colloid and Interface Science, 2022, 308, 102749.	7.0	17
579	High-adhesion PDMS/Ag conductive composites for flexible hybrid integration. Chemical Engineering Journal, 2023, 451, 138730.	6.6	8
580	Kirigami-inspired adhesion with high directional asymmetry. Journal of the Mechanics and Physics of Solids, 2022, 169, 105053.	2.3	10
581	Direct ink writing of tough, stretchable silicone composites. Soft Matter, 2022, 18, 7341-7347.	1.2	1
582	Enhancing the interfacial binding strength between modular stretchable electronic components. National Science Review, 2023, 10, .	4.6	12
583	Synthesis and Characterization of Novel Patchouli Essential Oil Loaded Starch-Based Hydrogel. Gels, 2022, 8, 536.	2.1	3
584	Nanostructured Surface Functionalization of Polyacrylamide Hydrogels Below the Length Scale of Hydrogel Heterogeneity. ACS Applied Materials & Interfaces, 2022, 14, 43937-43945.	4.0	7
585	A review of debonding behavior of soft material adhesive systems. Mechanics of Soft Materials, 2022, 4, .	0.4	5

#	Article	IF	CITATIONS
586	Adaptive stabilized mixed formulation for phase field fracture modeling of nearly incompressible finite elasticity. International Journal of Mechanical Sciences, 2022, 236, 107753.	3.6	6
587	Tissue-Engineered Models of the Human Brain: State-of-the-Art Analysis and Challenges. Journal of Functional Biomaterials, 2022, 13, 146.	1.8	4
588	Microgel reinforced zwitterionic hydrogel coating for blood-contacting biomedical devices. Nature Communications, 2022, 13, .	5.8	65
589	Threeâ€Dimensional Electrochromic Soft Photonic Crystals Based on MXeneâ€Integrated Blue Phase Liquid Crystals for Bioinspired Visible and Infrared Camouflage. Angewandte Chemie - International Edition, 2022, 61, .	7.2	70
590	Threeâ€Dimensional Electrochromic Soft Photonic Crystals Based on MXeneâ€Integrated Blue Phase Liquid Crystals for Bioinspired Visible and Infrared Camouflage. Angewandte Chemie, 2022, 134, .	1.6	8
591	Instant and Tough Adhesives for Rapid Gastric Perforation and Traumatic Pneumothorax Sealing. Advanced Healthcare Materials, 2022, 11, .	3.9	5
592	Stretchable Heterogeneous Polymer Networks of High Adhesion and Low Hysteresis. ACS Applied Materials & Interfaces, 2022, 14, 49264-49273.	4.0	4
593	Research progress of cartilage lubrication and biomimetic cartilage lubrication materials. Frontiers in Bioengineering and Biotechnology, 0, 10, .	2.0	7
594	Convenient hydrogel adhesion with crystalline zones. Journal of Industrial and Engineering Chemistry, 2023, 117, 103-108.	2.9	3
595	An extremely transparent and multi-responsive healable hydrogel strain sensor. Journal of Materials Chemistry A, 2022, 10, 24096-24105.	5.2	6
596	Bio-macromolecular design roadmap towards tough bioadhesives. Chemical Society Reviews, 2022, 51, 9127-9173.	18.7	31
597	Mechanically Interlocked Hydrogel–Elastomer Strain Sensor with Robust Interface and Enhanced Water—Retention Capacity. Gels, 2022, 8, 625.	2.1	1
598	A phase field solution for modelling hyperelastic material and hydrogel fracture in ABAQUS. Engineering Fracture Mechanics, 2022, 276, 108894.	2.0	13
599	The Height of Chitinous Ridges Alone Produces the Entire Structural Color Palette. Advanced Materials Interfaces, 2022, 9, .	1.9	5
600	Hydrogel interfaces for merging humans and machines. Nature Reviews Materials, 2022, 7, 935-952.	23.3	153
601	Boneâ€Adhesive Anisotropic Tough Hydrogel Mimicking Tendon Enthesis. Advanced Materials, 2023, 35, .	11.1	17
602	Inspired by the Periodontium: A Universal Bacteria-Defensive Hydrogel for Preventing Percutaneous Device-Related Infection. ACS Applied Materials & Interfaces, 2022, 14, 50424-50433.	4.0	14
603	Ultrathin Hydrogel Films toward Breathable Skinâ€Integrated Electronics. Advanced Materials, 2023, 35,	11.1	66

#	Article	IF	CITATIONS
604	Sodium alginate-hydrogel coatings on extracorporeal membrane oxygenation for anticoagulation. Frontiers in Cardiovascular Medicine, 0, 9, .	1.1	3
605	Highly sensitive strain sensor and self-powered triboelectric nanogenerator using a fully physical crosslinked double-network conductive hydrogel. Nano Energy, 2022, 104, 107955.	8.2	53
606	Tetra-armed PEG-based rapid high-adhesion, antibacterial and biodegradable pre-clinical bioadhesives for preventing pancreas leakage. Materials and Design, 2022, 224, 111281.	3.3	5
607	Corrosion resistance self-healing coating with bioinspired interfacial structure. Progress in Organic Coatings, 2023, 174, 107303.	1.9	1
608	Tough-interface-enabled stretchable electronics using non-stretchable polymer semiconductors and conductors. Nature Nanotechnology, 2022, 17, 1265-1271.	15.6	27
609	A hydrogel-based biosensor for stable detection of glucose. Biosensors and Bioelectronics, 2023, 221, 114908.	5.3	16
610	Electrochemical Bonding of Hydrogels at Rigid Surfaces. Small Methods, 2022, 6, .	4.6	3
611	3D conductive material strategies for modulating and monitoring cells. Progress in Materials Science, 2023, 133, 101041.	16.0	3
612	Active tissue adhesive activates mechanosensors and prevents muscle atrophy. Nature Materials, 2023, 22, 249-259.	13.3	18
613	Bilayer Hydrogels with Low Friction and High Load-Bearing Capacity by Mimicking the Oriented Hierarchical Structure of Cartilage. ACS Applied Materials & Interfaces, 2022, 14, 52347-52358.	4.0	19
614	Strong, Tough, and Adhesive Polyampholyte/Natural Fiber Composite Hydrogels. Polymers, 2022, 14, 4984.	2.0	3
615	Improved mechanical and tribological properties of PAAm/PVA hydrogel-Ti6Al4V alloy configuration for cartilage repair. Journal of Polymer Research, 2022, 29, .	1.2	3
616	Engineering Electrodes with Robust Conducting Hydrogel Coating for Neural Recording and Modulation. Advanced Materials, 2023, 35, .	11.1	14
617	Recent advances in conductive hydrogels: classifications, properties, and applications. Chemical Society Reviews, 2023, 52, 473-509.	18.7	125
618	A novel cation-ï€ coating of carbon fiber for promoting interfacial properties of fiber-based composites. Diamond and Related Materials, 2023, 131, 109574.	1.8	2
619	A super-hydrophilic and underwater super-oleophobic membrane with robust anti-fouling performance of high viscous crude oil for efficient oil/water separation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2023, 658, 130662.	2.3	7
620	Functional Tough Hydrogels: Design, Processing, and Biomedical Applications. Accounts of Materials Research, 2023, 4, 101-114.	5.9	23
621	Immunomodulatory biomaterials for implant-associated infections: from conventional to advanced therapeutic strategies. Biomaterials Research, 2022, 26, .	3.2	23

#	Article	IF	CITATIONS
622	Macromolecular Coatings for Endotracheal Tubes Probed on An Ex Vivo Extubation Setup. Advanced Materials Interfaces, 2023, 10, .	1.9	5
623	Stretchable One-Dimensional Conductors for Wearable Applications. ACS Nano, 2022, 16, 19810-19839.	7.3	21
624	Strong, Chemically Stable, and Enzymatically Onâ€Demand Detachable Hydrogel Adhesion Using Protein Crosslink. Macromolecular Rapid Communications, 2023, 44, .	2.0	2
625	Strong Anchoring of Hydrogels through Superwettingâ€Assisted Highâ€Density Interfacial Grafting. Angewandte Chemie, 2023, 135, .	1.6	2
626	Highly Stretchable, Swelling-Resistant, Self-Healed, and Biocompatible Dual-Reinforced Double Polymer Network Hydrogels. ACS Applied Bio Materials, 2023, 6, 228-237.	2.3	6
627	Injectable Dopamine–Polysaccharide In Situ Composite Hydrogels with Enhanced Adhesiveness. ACS Biomaterials Science and Engineering, 2023, 9, 427-436.	2.6	3
628	Strong Anchoring of Hydrogels through Superwettingâ€Assisted Highâ€Density Interfacial Grafting. Angewandte Chemie - International Edition, 2023, 62, .	7.2	5
629	Improved Cell-Free Transcription–Translation Reactions in Microfluidic Chemostats Augmented with Hydrogel Membranes for Continuous Small Molecule Dialysis. ACS Synthetic Biology, 2022, 11, 4134-4141.	1.9	2
630	Bioâ€inspired adhesive hydrogel for biomedicine—principles and design strategies. , 2022, 1, .		17
631	Performance of Oral Cavity Sensors: A Systematic Review. Sensors, 2023, 23, 588.	2.1	1
632	Engineering cohesion and adhesion through dynamic bonds for advanced adhesive materials. Canadian Journal of Chemical Engineering, 2023, 101, 4941-4954.	0.9	5
633			/ · · · · · · · · · · · · · · · · · · ·
	Supramolecular Photonic Hydrogel for Highâ€5ensitivity Alkaline Phosphatase Detection via Synergistic Driving Force. Small, 2023, 19, .	5.2	8
634	Supramolecular Photonic Hydrogel for Highâ€Sensitivity Alkaline Phosphatase Detection via Synergistic Driving Force. Small, 2023, 19, . Flexible-to-Stretchable Mechanical and Electrical Interconnects. ACS Applied Materials & amp; Interfaces, 2023, 15, 6005-6012.	5.2 4.0	8
634 635	Supramolecular Photonic Hydrogel for Highâ€Sensitivity Alkaline Phosphatase Detection via Synergistic Driving Force. Small, 2023, 19, . Flexible-to-Stretchable Mechanical and Electrical Interconnects. ACS Applied Materials & amp; Interfaces, 2023, 15, 6005-6012. Investigation of the Conditions for the Synthesis of Poly(3,4-ethylenedioxythiophene) ATRP Macroinitiator. Polymers, 2023, 15, 253.	5.2 4.0 2.0	8 7 1
634 635 636	Supramolecular Photonic Hydrogel for Highâ€Sensitivity Alkaline Phosphatase Detection via Synergistic Driving Force. Small, 2023, 19, . Flexible-to-Stretchable Mechanical and Electrical Interconnects. ACS Applied Materials & amp; Interfaces, 2023, 15, 6005-6012. Investigation of the Conditions for the Synthesis of Poly(3,4-ethylenedioxythiophene) ATRP Macroinitiator. Polymers, 2023, 15, 253. All polymeric conductive strain sensors with excellent skin adhesion, recovery, and long-term stability prepared from an anion–zwitterion based hydrogel. RSC Advances, 2023, 13, 1672-1683.	5.2 4.0 2.0 1.7	8 7 1 2
634 635 636 637	Supramolecular Photonic Hydrogel for Highâ€Gensitivity Alkaline Phosphatase Detection via Synergistic Driving Force. Small, 2023, 19, . Flexible-to-Stretchable Mechanical and Electrical Interconnects. ACS Applied Materials & amp; Interfaces, 2023, 15, 6005-6012. Investigation of the Conditions for the Synthesis of Poly(3,4-ethylenedioxythiophene) ATRP Macroinitiator. Polymers, 2023, 15, 253. All polymeric conductive strain sensors with excellent skin adhesion, recovery, and long-term stability prepared from an anion–zwitterion based hydrogel. RSC Advances, 2023, 13, 1672-1683. Interfacial Roughness Enhanced Gel/Elastomer Interfacial Bonding Enables Robust and Stretchable Triboelectric Nanogenerator for Reliable Energy Harvesting. Small, 2023, 19, .	5.2 4.0 2.0 1.7 5.2	8 7 1 2 5
634 635 636 637	Supramolecular Photonic Hydrogel for Highâ€Eensitivity Alkaline Phosphatase Detection via Synergistic Driving Force. Small, 2023, 19, . Flexible-to-Stretchable Mechanical and Electrical Interconnects. ACS Applied Materials & amp; Interfaces, 2023, 15, 6005-6012. Investigation of the Conditions for the Synthesis of Poly(3,4-ethylenedioxythiophene) ATRP Macroinitiator. Polymers, 2023, 15, 253. All polymeric conductive strain sensors with excellent skin adhesion, recovery, and long-term stability prepared from an anion–zwitterion based hydrogel. RSC Advances, 2023, 13, 1672-1683. Interfacial Roughness Enhanced Cel/Elastomer Interfacial Bonding Enables Robust and Stretchable Triboelectric Nanogenerator for Reliable Energy Harvesting. Small, 2023, 19, . A biocompatible hydrogel-coated fiber-optic probe for monitoring pH dynamics in mammalian brains in vivo. Sensors and Actuators B: Chemical, 2023, 380, 133334.	 5.2 4.0 2.0 1.7 5.2 4.0 	8 7 1 2 5 7

		CITATION R	EPORT	
#	Article		IF	CITATIONS
640	Periosteum-inspired in situ CaP generated nanocomposite hydrogels with strong bone superior stretchability for accelerated distraction osteogenesis. Biomaterials Research,	adhesion and 2022, 26, .	3.2	3
641	A Stretchable Expanded Polytetrafluorethylene-Silicone Elastomer Composite Electret f Sensor. Nanomaterials, 2023, 13, 158.	or Wearable	1.9	1
642	A Reversible Adhesive Hydrogel Tape. Advanced Functional Materials, 2023, 33, .		7.8	10
643	Moisture thermal battery with autonomous water harvesting for passive electronics co Reports Physical Science, 2023, 4, 101250.	bling. Cell	2.8	5
644	Freeform Membranes with Tunable Permeability in Microfluidics. Advanced Materials Te 2023, 8, .	chnologies,	3.0	3
645	Injectable, stretchable, toughened, bioadhesive composite hydrogel for bladder injury r Advances, 2023, 13, 10903-10913.	epair. RSC	1.7	6
646	Encapsulating eutectogels for stretchable humidity-resistant strain sensors. Soft Matte 2570-2578.	r, 2023, 19,	1.2	2
647	Catechol-free ternary random copolymers for strong and repeatable underwater adhesi Chemistry, 2023, 14, 2063-2071.	on. Polymer	1.9	1
648	Osmocapillary adhesion: Reversible and strong adhesion between any hydrogel. Extrem Letters, 2023, 61, 101996.	e Mechanics	2.0	2
649	Complex-chamber hydrogel actuators based on strong interfacial adhesion for fluid-driv multi-degree-of-freedom motions. Sensors and Actuators B: Chemical, 2023, 383, 1336	en 08.	4.0	2
650	Improved Antifouling Ability for Doubleâ€Network Hydrogel Coatings with Excellent Ela Toughness under Marine Tidal Environment. Advanced Engineering Materials, 2023, 25	istic and , .	1.6	4
651	A bioadhesive robot to activate muscles. Nature Materials, 2023, 22, 149-150.		13.3	0
652	Conductive and elastic bottlebrush elastomers for ultrasoft electronics. Nature Commu 2023, 14, .	nications,	5.8	26
653	Photo-and Heat-Induced Dismantlable Adhesion Interfaces Prepared by Layer-by-Layer D Langmuir, 2023, 39, 2771-2778.	eposition.	1.6	4
654	An inhaled bioadhesive hydrogel to shield non-human primates from SARS-CoV-2 infect Materials, 2023, 22, 903-912.	ion. Nature	13.3	13
655	PEG-Based Hydrogel Coatings: Design Tools for Biomedical Applications. Annals of Bion Engineering, 0, , .	nedical	1.3	2
656	Bioâ€inspired ionic skins for smart medicine. , 2023, 2, .			3
657	Deep Eutectic Solventsâ€Based Ionogels with Ultrafast Gelation and High Adhesion in I Environments. Advanced Functional Materials, 2023, 33, .	Harsh	7.8	41

#	Article	IF	CITATIONS
658	A Bioinspired Polymerâ€Based Composite Displaying Both Strong Adhesion and Anisotropic Thermal Conductivity. Advanced Functional Materials, 2023, 33, .	7.8	26
659	Anisotropic and super-strong conductive hydrogels enabled by mechanical stretching combined with the Hofmeister effect. Journal of Materials Chemistry A, 2023, 11, 8038-8047.	5.2	15
660	Peel tests for quantifying adhesion and toughness: A review. Progress in Materials Science, 2023, 137, 101086.	16.0	25
661	A model for fracture of temperature-sensitive hydrogel with diffusion and large deformation. Engineering Fracture Mechanics, 2023, 281, 109138.	2.0	6
662	Highly Efficient Switchable Underwater Adhesion in Channeled Hydrogel Networks. Advanced Functional Materials, 0, , .	7.8	10
663	Wearable technology in healthcare engineering. , 2023, , 227-248.		1
664	Integrated radiative and evaporative cooling beyond daytime passive cooling power limit. , 2023, 2, e9120060.		8
665	Waterâ€Resistant Conductive Gels toward Underwater Wearable Sensing. Advanced Materials, 2023, 35, .	11.1	22
666	Embedment of sensing elements for robust, highly sensitive, and cross-talk–free iontronic skins for robotics applications. Science Advances, 2023, 9, .	4.7	40
667	Self-recoverable, highly adhesive, anti-freezing/drying, organohydrogel stretchable sensors. Applied Materials Today, 2023, 31, 101777.	2.3	2
668	A Universal Interfacial Strategy Enabling Ultraâ€Robust Gel Hybrids for Extreme Epidermal Bioâ€Monitoring. Advanced Functional Materials, 2023, 33, .	7.8	11
669	Hydrogel-Film-Fabricated Fluorescent Biosensors with Aggregation-Induced Emission for Albumin Detection through the Real-Time Modulation of a Vortex Fluidic Device. Molecules, 2023, 28, 3244.	1.7	0
670	Organoâ€Hydrogel Electrolytes with Versatile Environmental Adaptation for Advanced Flexible Aqueous Energy Storage Devices. Small Science, 2023, 3, .	5.8	9
680	Hydrogels and conductive hydrogels for implantable bioelectronics. MRS Bulletin, 2023, 48, 495-505.	1.7	9
687	Hydrogel-integrated optical fiber sensors and their applications: a comprehensive review. Journal of Materials Chemistry C, 2023, 11, 9383-9424.	2.7	5
688	Wearable Sensor: An Emerging Data Collection Tool for Plant Phenotyping. Plant Phenomics, 2023, 5, .	2.5	5
734	A cutting-edge solution for adhesives. Nature Materials, 2023, 22, 933-934.	13.3	0
739	Interpenetrating polymer networks hydrogels. , 2024, , 331-346.		0

	Сіти	ation Report	
#	Article	IF	CITATIONS
748	Mechanochromic and ionic conductive cholesteric liquid crystal elastomers for biomechanical monitoring and human–machine interaction. Materials Horizons, 2024, 11, 217-226.	6.4	5
761	Validation of Material Models for PDMS Material by Finite Element Analysis. Lecture Notes in Electrical Engineering, 2023, , 733-746.	0.3	0
781	Material and structural approaches for human-machine interfaces. , 2024, , 227-290.		0
783	Incorporation of soft materials for flexible electronics. , 2024, , 155-225.		0
792	Thermo-growing ion clusters enabled healing strengthening and tough adhesion for highly reliable skin electronics. Materials Horizons, 2024, 11, 1923-1933.	6.4	0
800	Hybrid Soft Actuator Driven by Temperature-Responsive Hydrogel and Soft Grid Skeleton with Residual Stress. , 2024, , .		0