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Soft Robotic Manipulation and Locomotion with a 3D Printed Electroactive Hydrogel

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#	Paper	IF	Citations
216	Additive manufacturing with stimuli-responsive materials. 2018 , 6, 20621-20645		50
215	Rapid macroscale shape morphing of 3D-printed polyrotaxane monoliths amplified from pH-controlled nanoscale ring motions. 2018 , 6, 11956-11960		24
214	A highly tough and stiff supramolecular polymer double network hydrogel. 2018 , 153, 193-200		49
213	A mechanically enhanced electroactive hydrogel for 3D printing using a multileg long chain crosslinker. 2019 , 28, 095016		8
212	Super-tough hydrogels using ionically crosslinked networks. 2019 , 136, 48182		6
211	Bioactuators based on stimulus-responsive hydrogels and their emerging biomedical applications. 2019 , 11,		100
210	Programming the Shape Transformation of a Composite Hydrogel Sheet via Erasable and Rewritable Nanoparticle Patterns. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 42654-42660	9.5	11
209	A 3D-Printed Omni-Purpose Soft Gripper. 2019 , 35, 1268-1275		46
208	Contactless Manipulation of Soft Robots. 2019 , 12,		20
207	Electroactive Smart Polymers for Biomedical Applications. 2019 , 12,		81
206	Directed Printing and Reconfiguration of Thermoresponsive Silica-pNIPAM Nanocomposites. 2019 , 40, e1900191		4
205	Shape Morphing of Hydrogels in Alternating Magnetic Field. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 21194-21200	9.5	54
204	4D Printing of Shape-Memory Hydrogels for Soft-Robotic Functions. 2019 , 4, 1900071		62
203	Stimuli-responsive materials in additive manufacturing. 2019 , 93, 36-67		96
202	Super tough bilayer actuators based on multi-responsive hydrogels crosslinked by functional triblock copolymer micelle macro-crosslinkers. 2019 , 7, 2619-2625		22
201	Design and Applications of Photoresponsive Hydrogels. 2019 , 31, e1807333		187
200	Triggering the Shrinking/Swelling Process in Thin Gel Layers on Conducting Surfaces by Applying an Appropriate Potential. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 12114-12120	9.5	10

199	Improving Surface Roughness of Additively Manufactured Parts Using a Photopolymerization Model and Multi-Objective Particle Swarm Optimization. 2019 , 9, 151	20
198	Multi-Responsive Bilayer Hydrogel Actuators with Programmable and Precisely Tunable Motions. 2019 , 220, 1800562	19
197	Transformer Hydrogels: A Review. 2019 , 4, 1900043	141
196	Mechanical Properties and Drug Delivery Ability of Smart Hydrogels. 2019 ,	1
195	Encoding kirigami bi-materials to morph on target in response to temperature. 2019 , 9, 19499	11
194	Graphene oxide/polymer actuator driven by acetone vapor enabling an ultra-large bending angle and fast response. 2019 , 28, 105043	5
193	A shape-shifting composite hydrogel sheet with spatially patterned plasmonic nanoparticles. 2019 , 7, 1679-1683	9
192	Deswelling Dynamics of Thermoresponsive Microgel Capsules and Their Ultrasensitive Sensing Applications: A Mesoscopic Simulation Study. 2019 , 123, 1828-1838	15
191	3D-Printed Silicone Soft Architectures with Programmed Magneto-Capillary Reconfiguration. 2019 , 4, 1800528	33
190	Recent Progress in Biomimetic Anisotropic Hydrogel Actuators. 2019 , 6, 1801584	214
189	Going Beyond Traditional Applications? The Potential of Hydrogels. 2019 , 3, 1800270	7
188	4D Printing: Future Insight in Additive Manufacturing. 2020 , 26, 564-585	41
187	Inorganic Stimuli-Responsive Nanomembranes for Small-Scale Actuators and Robots. 2020 , 2, 1900092	2
186	Hydrogels and hydrogel composites for 3D and 4D printing applications. 2020 , 427-465	4
185	Programming the time into 3D printing: current advances and future directions in 4D printing. 2020 , 3, 012001	19
184	3D and 4D printing of biomaterials and biocomposites, bioinspired composites, and related transformers. 2020 , 467-504	2
183	Microfabrication Using Shape-Transforming Soft Materials. 2020 , 30, 1908028	24
182	Recent advances in soft functional materials: preparation, functions and applications. 2020 , 12, 1281-1306	35

181	Fabrication of Photothermally Responsive Nanocomposite Hydrogel through 3D Printing. 2020 , 305, 1900718		14
180	Large-Scale Spinning Approach to Engineering Knittable Hydrogel Fiber for Soft Robots. 2020 , 14, 14929-14938		1
179	Fully physically cross-linked hydrogel as highly stretchable, tough, self-healing and sensitive strain sensors. 2020 , 210, 123039		17
178	Bionic intelligent soft actuators: high-strength gradient intelligent hydrogels with diverse controllable deformations and movements. 2020 , 8, 9362-9373		6
177	From Passive Inorganic Oxides to Active Matters of Micro/Nanomotors. 2020 , 30, 2003195		13
176	Emerging flexible sensors based on nanomaterials: recent status and applications. 2020 , 8, 25499-25527		40
175	Composite Inks for Extrusion Printing of Biological and Biomedical Constructs. 2021 , 7, 4009-4026		10
174	Smart materials for smart healthcare—moving from sensors and actuators to self-sustained nanoenergy nanosystems. 2020 , 1, 92-124		41
173	Mechanically Strong, Tough, and Shape Deformable Poly(acrylamide–vinylimidazole) Hydrogels Based on Cu Complexation. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 44205-44214	9.5	14
172	Concentration Gradient-Based Soft Robotics: Hydrogels Out of Water. 2020 , 30, 2004417		11
171	Fast and programmable locomotion of hydrogel-metal hybrids under light and magnetic fields. 2020 , 5,		55
170	Untethered gripper-type hydrogel millirobot actuated by electric field and magnetic field. 2020 , 29, 085024		9
169	Highly Sensitive Strain Sensor Based on a Stretchable and Conductive Poly(vinyl alcohol)/Phytic Acid/NH-POSS Hydrogel with a 3D Microporous Structure. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 26496-26508	9.5	46
168	Electroactive polymer composites and applications. 2020 , 149-156		1
167	4D Printing of Hydrogels: A Review. 2020 , 30, 1910606		97
166	MEMS actuators for biomedical applications: a review. 2020 , 30, 073001		26
165	Deterministic Role of Carbon Nanotube-Substrate Coupling for Ultrahigh Actuation in Bilayer Electrothermal Actuators. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 29959-29970	9.5	4
164	Autonomous self-healing pneumatic McKibben muscle based on a new hydrogel material. 2020 ,		1

163	Hybrid granular hydrogels: combining composites and microgels for extended ranges of material properties. 2020 , 16, 3769-3778	9
162	Materials as Machines. 2020 , 32, e1906564	118
161	Smart polymers and nanocomposites for 3D and 4D printing. 2020 , 40, 215-245	59
160	A novel xanthan gum-based conductive hydrogel with excellent mechanical, biocompatible, and self-healing performances. 2020 , 247, 116743	31
159	Multifunctional soft machines based on stimuli-responsive hydrogels: from freestanding hydrogels to smart integrated systems. 2020 , 8, 100088	32
158	Solid-phase esterification between poly(vinyl alcohol) and malonic acid and its function in toughening hydrogels. 2020 , 11, 4787-4797	11
157	Materials, design, and fabrication of shape programmable polymers. 2020 , 3, 032002	13
156	Ionic Strength and Thermal Dual-Responsive Bilayer Hollow Spherical Hydrogel Actuator. 2020 , 41, e1900543	12
155	Multipolar spatial electric field modulation for freeform electroactive hydrogel actuation. 2020 , 10, 2482	7
154	3D printing of bioinspired textured surfaces with superamphiphobicity. 2020 , 12, 2924-2938	27
153	Skin-Inspired Multifunctional Luminescent Hydrogel Containing Layered Rare-Earth Hydroxide with 3D Printability for Human Motion Sensing. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 6797-6805	9.5 18
152	Encoding Smart Microjoints for Microcrawlers with Enhanced Locomotion. 2020 , 2, 1900128	9
151	Multi-triggered and enzyme-mimicking graphene oxide/polyvinyl alcohol/G-quartet supramolecular hydrogels. 2020 , 12, 5186-5195	13
150	Hydrogel machines. 2020 , 36, 102-124	268
149	Self-Regulating Plant Robots: Bioinspired Heliotropism and Nyctinasty. 2020 , 7, 444-450	8
148	Self-Limiting Electro spray Deposition for the Surface Modification of Additively Manufactured Parts. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 20901-20911	9.5 14
147	Projection micro stereolithography based 3D printing and its applications. 2020 , 2, 022004	76
146	Shape memory materials for electrically-powered soft machines. 2020 , 8, 4539-4551	24

145	A Review of 3D Printing Technologies for Soft Polymer Materials. 2020 , 30, 2000187		148
144	Future of additive manufacturing: Overview of 4D and 3D printed smart and advanced materials and their applications. 2021 , 403, 126162		72
143	Bioinspired Sensing, Actuation, and Control in Underwater Soft Robotic Systems. 2021 ,		2
142	3D Printing Materials for Soft Robotics. 2021 , 33, e2003387		50
141	Photo-curing 3D printing robust elastomers with ultralow viscosity resin. 2021 , 138, 49965		2
140	3D Printing of Biocompatible Shape-Memory Double Network Hydrogels. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 12726-12734	9.5	8
139	Multifunctional materials based on smart hydrogels for biomedical and 4D applications. 2021 , 407-467		0
138	Recent progress in the shape deformation of polymeric hydrogels from memory to actuation. 2021 , 12, 6472-6487		16
137	3D printing of highly stretchable hydrogel with diverse UV curable polymers. 2021 , 7,		70
136	Waxy rice amylopectin towards stretchable elastic conductive hydrogel for human motion detection. 2021 , 45, 4210-4218		2
135	Fluorescent, electrically responsive and ultratough self-healing hydrogels bioinspired all-in-one hierarchical micelles. 2021 , 8, 3096-3104		5
134	Supramolecular Hydrogels with Tunable Swelling by Host Complexation with Cyclobis(paraquat-p-phenylene). 2021 , 54, 1926-1933		1
133	3D printed magnetically-actuating micro-gripper operates in air and water. 2021 , 38, 101834		8
132	3D Printable Electrically Conductive Hydrogel Scaffolds for Biomedical Applications: A Review. 2021 , 13,		30
131	Fully 3D-Printed Hydrogel Actuator for Jellyfish Soft Robots. 2021 , 10, 037002		5
130	A review on recent advances in gel adhesion and their potential applications. 2021 , 325, 115254		15
129	Design of an Electro-Stimulated Hydrogel Actuator System with Fast Flexible Folding Deformation under a Low Electric Field. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 15633-15646	9.5	13
128	3D printing hydrogels for actuators: A review. 2021 , 32, 2923-2923		16

127	3D-printed self-healing hydrogels via Digital Light Processing. 2021 , 12, 2462		25
126	3D Printing Hydrogel-Based Soft and Biohybrid Actuators: A Mini-Review on Fabrication Techniques, Applications, and Challenges. 2021 , 8, 673533		9
125	Vat Photopolymerization 3D Printing of Advanced Soft Sensors and Actuators: From Architecture to Function. 2021 , 6, 2001218		7
124	Self-crosslinked poly-L-ornithine and poly-L-arginine networks: Synthesis, characterization, pH-responsibility, biocompatibility, and AIE-functionality. 2021 , 138, 50802		1
123	4D Printing Dual Stimuli-Responsive Bilayer Structure Toward Multiple Shape-Shifting. 2021 , 8,		8
122	Tubular Hygromechanical Polymeric Brake for Soft and Compact Wearable Robots. 2021 , 3, 3206-3213		0
121	Design and Preparation of Magnetism-Driven Intelligent Hydrogel Actuators. 2021 , 36, 165-171		1
120	Recent Progress in 3D Printing of Smart Structures: Classification, Challenges, and Trends. 2000271		1
119	3D printing of shape-morphing and antibacterial anisotropic nanocellulose hydrogels. 2021 , 259, 117716		16
118	Stimuli-Responsive Polymers for Sensing and Reacting to Environmental Conditions. 2021 , 116, 101386		11
117	Intelligent Shape-Morphing Micromachines. 2021 , 2021, 9806463		1
116	3D Printing of Electrically Responsive PVC Gel Actuators. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 24164-24172	9.5	8
115	Flexible Materials for High-Resolution 3D Printing of Microfluidic Devices with Integrated Droplet Size Regulation. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 31086-31101	9.5	3
114	Hydrogel-Based Motors. 2021 , 6, 2100158		2
113	Additive manufacturing landscape and materials perspective in 4D printing. 2021 , 115, 1-16		7
112	Highly stretchable self-sensing actuator based on conductive photothermally-responsive hydrogel. 2021 ,		23
111	Liquid Stratification and Diffusion-Induced Anisotropic Hydrogel Actuators with Excellent Thermosensitivity and Programmable Functionality. 2100030		2
110	Asymmetric bilayer CNTs-elastomer/hydrogel composite as soft actuators with sensing performance. 2021 , 415, 128988		19

109	Visible-light-driven isotropic hydrogels as anisotropic underwater actuators. 2021 , 85, 105965	16
108	Exchange Counterion in Polycationic Hydrogels: Tunability of Hydrophobicity, Water State, and Floating Capability for a Floating pH Device. 2021 , 7,	1
107	Stimuli-responsive hydrogels: Fabrication and biomedical applications. 20200112	12
106	Recent Trends and Innovation in Additive Manufacturing of Soft Functional Materials. 2021 , 14,	4
105	Electroactive Polymers Obtained by Conventional and Non-Conventional Technologies. 2021 , 13,	1
104	Review: 3D printing hydrogels for the fabrication of soilless cultivation substrates. 2021 , 24, 101088	7
103	Biology and bioinspiration of soft robotics: Actuation, sensing, and system integration. 2021 , 24, 103075	8
102	3D Printing of Hydrogels for Stretchable Ionotronic Devices. 2107437	10
101	Reversible change in volume of thin hydrogel layer deposited on electrode surface using Cu(II)←Cu(I) process. 2021 , 344, 130114	2
100	4D biofabrication via instantly generated graded hydrogel scaffolds. 2022 , 7, 324-332	7
99	Recent progress on hydrogel actuators. 2021 , 9, 1762-1780	23
98	Conductive hydrogel-based flexible strain sensors with superior chemical stability and stretchability for mechanical sensing in corrosive solvents. 2021 , 45, 4647-4657	6
97	Recent progress of biomimetic motions-from microscopic micro/nanomotors to macroscopic actuators and soft robotics.. 2021 , 11, 27406-27419	0
96	Artificial Muscles for Underwater Soft Robotic System. 2021 , 71-97	3
95	Spider web-inspired ultra-stable 3D Ti3C2TX (MXene) hydrogels constructed by temporary ultrasonic alignment and permanent in-situ self-assembly fixation. 2020 , 197, 108187	17
94	Emerging micro-additive manufacturing technologies enabled by novel optical methods. 2020 , 8, 1827	9
93	Antifreezing and Stretchable Organohydrogels as Soft Actuators. 2019 , 2019, 2384347	34
92	High-Resolution 3D Printing of Mechanically Tough Hydrogels Prepared by Thermo-Responsive Poloxamer Ink Platform. 2021 , e2100579	1

91	Multifunctional thermo-magnetically actuated hybrid soft millirobot based on 4D printing. 2021 , 109451	6
90	The three-component photoinitiating systems based on flavonol sulfonate and application in 3D printing. 2022 , 197, 109899	1
89	Origami Spring-Inspired Shape Morphing for Flexible Robotics. 2021 ,	2
88	Bioinspired Sensors and Actuators Based on Stimuli-Responsive Hydrogels for Underwater Soft Robotics. 2021 , 99-115	1
87	Stimuli-responsive hydrogel sponge for ultrafast responsive actuator. 2022 , 1, 100002	2
86	Electrochemical devices based on conducting surfaces modified with smart hydrogels: Outlook and perspective. e2100172	2
85	Fundamentals and mechanics of polyelectrolyte gels: Thermodynamics, swelling, scattering, and elasticity. 2021 , 2, 041309	1
84	Recyclable silicone elastic light-triggered actuator with a reconfigurable Janus structure and self-healable performance.	0
83	Supramolecular Assembly of Shape Memory and Actuating Hydrogels for Programmable Shape Transformation.. <i>ACS Applied Materials & Interfaces</i> , 2022 ,	9.5 0
82	Poly(acrylic acid)/polypyrrole interpenetrated network as electro-responsive hydrogel for biomedical applications. 52091	1
81	Smart/stimuli-responsive hydrogels: Cutting-edge platforms for tissue engineering and other biomedical applications.. 2022 , 13, 100186	19
80	Manipulation of free-floating objects using Faraday flows and deep reinforcement learning.. 2022 , 12, 335	
79	Solvent-responsive strong hydrogel with programmable deformation and reversible shape memory for load-carrying soft robot. 2022 , 30, 103067	3
78	Rapid Preparation of Dual Cross-Linked Mechanical Strengthening Hydrogels via Frontal Polymerization for use as Shape Deformable Actuators. 2022 , 4, 1457-1465	2
77	3D printing of functional polymers for miniature machines. 2022 , 5, 012001	0
76	Poly(acrylic acid)-Based Hydrogel Actuators Fabricated via Digital Light Projection Additive Manufacturing. 2022 , 4, 971-979	2
75	A Shift from Efficiency to Adaptability: Recent Progress in Biomimetic Interactive Soft Robotics in Wet Environments.. 2022 , e2104347	5
74	Chemical adhesion of a hydrogel on an elastomer surface enabling directionally-bendable actuators.	1

73	Synergistic complexation of phenol functionalized polymer induced in situ microfiber formation for 3D printing of marine-based hydrogels.	3
72	Progress in 4D printing of stimuli responsive materials. 2021 , 60, 1845-1883	1
71	Application of Additive Technology to Create Universal Carriers of Cellular Structures. 2022 , 29-34	
70	Adhesive Hydrogels Tailored with Cellulose Nanofibers And Ferric Ions for Highly Sensitive Strain Sensors.	
69	Recent advances in the 3D printing of electrically conductive hydrogels for flexible electronics. 2022 , 10, 5380-5399	0
68	Material Design for Enhancing Properties of 3D Printed Polymer Composites for Target Applications. 2022 , 10, 45	2
67	Materials for Smart Soft Actuator Systems.. 2021 ,	16
66	Reversing Hydrogel Adhesion Property via Firmly Anchoring Thin Adhesive Coatings. 2111278	2
65	A Data-Driven Review of Soft Robotics. 2100163	2
64	Advances in Digital Light Processing of Hydrogels.. 2022 ,	1
63	Intergranular corrosion behaviour of FeCoCrNi high-entropy alloy fabricated by selective laser melting.	
62	Decade of bio-inspired soft robots: A review.	1
61	Application and Prospects of Hydrogel Additive Manufacturing. 2022 , 8, 297	2
60	Combining printing and nanoparticle assembly: Methodology and application of nanoparticle patterning. 2022 , 3, 100253	3
59	On modeling the infiltration of water in a PEG-DA hydrogel and the resulting swelling under unconstrained and mechanically-constrained conditions. 2022 , 101775	
58	Recent Advances in Multi-mechanism Design of Crack-resistant Hydrogels.	
57	Fabrication and Functionality Integration Technologies for Small-scale Soft Robots. 2200671	
56	A Review of Recent Advances in Electrically Driven Polymer-Based Flexible Actuators: Smart Materials, Structures, and Their Applications. 2200041	2

55	Nanomembrane Robotics. 2022 , 253-285	
54	Responsive materials architected in space and time.	5
53	4D-printed stimuli-responsive hydrogels modeling and fabrication. 2022 , 151-192	
52	4D printing of gels and soft materials. 2022 , 265-295	
51	The Synergy of Biomimetic Design Strategies for Tissue Constructs. 2201414	3
50	Fluid-driven hydrogel actuators with an origami structure. 2022 , 25, 104674	2
49	Soft Ionics: Governing Physics and State of Technologies. 10,	1
48	Electroactive Polymer-Based Composites for Artificial Muscle-like Actuators: A Review. 2022 , 12, 2272	1
47	Recent Advances in Stimuli-Responsive Shape-Morphing Hydrogels. 2203323	4
46	Programmatically Regulating Morphological Evolution of Inert Polymeric Hydrogels Using Anchored Large-Deformable Muscle.	0
45	A Superabsorbent Sodium Polyacrylate Printing Resin as Actuator Material in 4D Printing. 2200306	1
44	Deep Eutectic Solvent-Based Ultra-Stretchable, Anti-Freezing, and Ambient-Stable Supramolecular Ionogel for Wearable Sensor. 2200248	
43	3D Printing of Polymer Hydrogels From Basic Techniques to Programmable Actuation. 2205345	3
42	Modeling coupled electrochemical and mechanical behavior of soft ionic materials and ionotronic devices. 2022 , 105014	1
41	Additive manufacturing of bio-based hydrogel composites: recent advances.	0
40	The Fabrication and Applications of Bioinspired Hydrogel Actuators. 2022 , 301-337	
39	Ultra-fast programmable human-machine interface enabled by 3D printed degradable conductive hydrogel. 2022 , 27, 100794	0
38	Ionic coordination strengthening of temperature-driven gradient hydrogel actuators with rapid responsiveness. 2022 , 245, 110210	0

37	Adhesive hydrogels tailored with cellulose nanofibers and ferric ions for highly sensitive strain sensors. 2022 , 450, 138256	3
36	Micro/nano functional devices fabricated by additive manufacturing. 2023 , 131, 101020	4
35	Role of Enabling Technologies in Soft Tissue Engineering: A Systematic Literature Review. 2022 , 1-10	0
34	Multicomponent and multifunctional integrated miniature soft robots.	0
33	Bio-chemo-mechanical coupling models of soft biological materials: A review. 2022 ,	0
32	Transient shape morphing of active gel plates: geometry and physics. 2022 , 18, 5867-5876	0
31	Recent Advances in Molecular Programming of Liquid Crystal Elastomers with Additive Manufacturing for 4D Printing.	0
30	Multi-material Fabrication for Magnetically Driven Miniature Soft Robots Using Stereolithography. 2022 ,	0
29	Hydrogel-Based Flexible Electronics. 2205326	6
28	Stimuli-Responsive of Flexible Silver/Organic Framework Film with Molecular Rotors Based on Methylene Rotation. 2200108	0
27	High-performance electrified hydrogel actuators based on wrinkled nanomembrane electrodes for untethered insect-scale soft aquabots. 2022 , 7,	0
26	Thermodynamics of Hygroresponsive Soft Engines: Cycle Analysis and Work Ratio. 2022 , 18,	0
25	4D printing of bilayer tubular structure with dual-stimuli responsive based on self-rolling behavior.	0
24	Preparation of tough and anti-freezing hybrid double-network carboxymethyl chitosan/poly(acrylic amide) hydrogel and its application for flexible strain sensor.	0
23	A Hydrogel-Based Self-Sensing Underwater Actuator. 2022 , 13, 1779	0
22	Advances in Biodegradable Soft Robots. 2022 , 14, 4574	0
21	A review of protein hydrogels: Protein assembly mechanisms, properties, and biological applications. 2022 , 220, 112973	1
20	Effect of Electrode Morphology on Performance of Ionic Actuators Based on Vat Photopolymerized Membranes. 2022 , 12, 1110	0

- 19 The Dynamic Mortise-and-Tenon Interlock Assists Hydrated Soft Robots Toward Off-Road Locomotion. **2022**, 2022, ○
- 18 Novel photosensitive resin simultaneously with outstanding cryogenic strength and toughness for digital light processing three-dimensional Printing. **2023**, 27, 101301 ○
- 17 Emerging 4D printing strategies for on-demand local actuation & micro printing of soft materials. **2023**, 184, 111778 ○
- 16 A strong and tough gelatin/polyvinyl alcohol double network hydrogel actuator with superior actuation strength and fast actuation speed. **2022**, 18, 9197-9204 ○
- 15 Emerging trends in humidity-responsive 4D bioprinting. **2022**, 140550 1
- 14 Introduction to 4D Printing: Concepts and Material Systems. **2023**, 1-42 ○
- 13 Adhesive Gel System Growable by Reversible Addition Fragmentation Chain Transfer (RAFT) Polymerization. **2023**, 5, 983-990 ○
- 12 A Biomimetic Bilayer Hydrogel Actuator Based on Thermoresponsive Gelatin Methacryloyl Poly(N-isopropylacrylamide) Hydrogel with Three-Dimensional Printability. 1
- 11 Modulation of Double-Network Hydrogels via Seeding Calcium Carbonate Microparticles for the Engineering of Ultrasensitive Wearable Sensors. ○
- 10 Magnetic/thermo dual-sensitive hydrogel-based 3D Printable millirobots. **2022**, ○
- 9 Polymers for additive manufacturing and 4D-printing for tissue regenerative applications. **2023**, 159-182 ○
- 8 Digital light processing 4D Printing multilayer polymers with tunable mechanical properties and shape memory behavior. **2023**, 142830 ○
- 7 4D printed untethered milli-gripper fabricated using a biodegradable and biocompatible electro- and magneto-active hydrogel. **2023**, 384, 133654 ○
- 6 Temperature-Modulated Changes in Thin Gel Layer Thickness Triggered by Electrochemical Stimuli. **2023**, 39, 2398-2407 ○
- 5 4D printing of polyamide 1212 based shape memory thermoplastic polyamide elastomers by selective laser sintering. **2023**, 92, 157-164 ○
- 4 Research on imminent enlargements of smart materials and structures towards novel 4D printing (4DP: SMs-SSs). ○
- 3 Natural fiber biocomposites via 4D printing technologies: a review of possibilities for agricultural bio-mulching and related sustainable applications. ○
- 2 Magnetically Actuable Complex-Shaped Microgels for Spatio-Temporal Flow Control. ○

1 Advanced Design of High-Performance Moist-Electric Generators.

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