

Designing Responsive Buckled Surfaces by Halftone Ge

Science

335, 1201-1205

DOI: [10.1126/science.1215309](https://doi.org/10.1126/science.1215309)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Petal shapes of sympetalous flowers: the interplay between growth, geometry and elasticity. <i>New Journal of Physics</i> , 2012, 14, 085014.	1.2	16
2	Swell Approaches for Changing Polymer Shapes. <i>Science</i> , 2012, 335, 1179-1180.	6.0	10
3	Counting primary loops in polymer gels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 19119-19124.	3.3	189
4	Overcurvature describes the buckling and folding of rings from curved origami to foldable tents. <i>Nature Communications</i> , 2012, 3, 1290.	5.8	43
6	Engineering of Complex Order and the Macroscopic Deformation of Liquid Crystal Polymer Networks. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 12469-12472.	7.2	297
8	Gelation of Copolymers with Pendent Benzophenone Photo-Cross-Linkers. <i>Macromolecules</i> , 2012, 45, 5237-5246.	2.2	92
9	Patterning by Photochemically Directing the Marangoni Effect. <i>ACS Macro Letters</i> , 2012, 1, 1150-1154.	2.3	58
10	Self-folding thin-film materials: From nanopolyhedra to graphene origami. <i>MRS Bulletin</i> , 2012, 37, 847-854.	1.7	113
11	Hyperbolic Interfaces. <i>Physical Review Letters</i> , 2012, 109, 136101.	2.9	12
12	Novel Double Phase Transforming Organogel Based on β -Cyclodextrin in 1,2-Propylene Glycol. <i>Journal of Physical Chemistry B</i> , 2012, 116, 13106-13113.	1.2	24
13	Custom shapes from swell gels. <i>Physics Today</i> , 2012, 65, 15-16.	0.3	8
14	Lateral Buckling of High Aspect Ratio Janus Nanowalls. <i>Advanced Functional Materials</i> , 2012, 22, 3723-3728.	7.8	16
15	Modeling the Photoinduced Reconfiguration and Directed Motion of Polymer Gels. <i>Advanced Functional Materials</i> , 2013, 23, 4601-4610.	7.8	56
16	Reversible patterning and actuation of hydrogels by electrically assisted ionoprinting. <i>Nature Communications</i> , 2013, 4, 2257.	5.8	380
17	The metric description of elasticity in residually stressed soft materials. <i>Soft Matter</i> , 2013, 9, 8187.	1.2	51
18	A phase diagram of neutral polyampholyte " from solution to tough hydrogel. <i>Journal of Materials Chemistry B</i> , 2013, 1, 4555.	2.9	71
19	Hydrogel-Based Microactuators with Remote-Controlled Locomotion and Fast Pb^{2+} -Response for Micromanipulation. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 7219-7226.	4.0	26
20	A tension-based model of flat and corrugated simple epithelia. <i>Soft Matter</i> , 2013, 9, 8368.	1.2	17

#	ARTICLE	IF	CITATIONS
21	Harnessing instabilities for design of soft reconfigurable auxetic/chiral materials. <i>Soft Matter</i> , 2013, 9, 8198.	1.2	174
22	Helicoids, Wrinkles, and Loops in Twisted Ribbons. <i>Physical Review Letters</i> , 2013, 111, 174302.	2.9	79
23	Dipoles in thin sheets. <i>European Physical Journal E</i> , 2013, 36, 106.	0.7	13
24	Bioinspired Hygromorphic Actuator Exhibiting Controlled Locomotion. <i>ACS Macro Letters</i> , 2013, 2, 960-965.	2.3	52
25	Thermal stability of idealized folded carbyne loops. <i>Nanoscale Research Letters</i> , 2013, 8, 490.	3.1	18
26	Reflection and Refraction of Flexural Waves at Geometric Boundaries. <i>Physical Review Letters</i> , 2013, 111, 038101.	2.9	13
27	Swelling-driven rolling and anisotropic expansion of striped gel sheets. <i>Soft Matter</i> , 2013, 9, 8264.	1.2	77
28	Shape transitions in hyperbolic non-Euclidean plates. <i>Soft Matter</i> , 2013, 9, 8151.	1.2	29
29	Single-composition three-dimensionally morphing hydrogels. <i>Soft Matter</i> , 2013, 9, 588-596.	1.2	27
30	Bio-Inspired Polymer Composite Actuator and Generator Driven by Water Gradients. <i>Science</i> , 2013, 339, 186-189.	6.0	710
31	Electronically Programmable, Reversible Shape Change in Two- and Three-Dimensional Hydrogel Structures. <i>Advanced Materials</i> , 2013, 25, 1541-1546.	11.1	169
32	Three-dimensional shape transformations of hydrogel sheets induced by small-scale modulation of internal stresses. <i>Nature Communications</i> , 2013, 4, 1586.	5.8	518
33	Multiple Shape Transformations of Composite Hydrogel Sheets. <i>Journal of the American Chemical Society</i> , 2013, 135, 4834-4839.	6.6	302
34	A Tissue-Like Printed Material. <i>Science</i> , 2013, 340, 48-52.	6.0	516
35	Biomimetic Hydrogel-Based Actuating Systems. <i>Advanced Functional Materials</i> , 2013, 23, 4555-4570.	7.8	411
36	Swelling-induced deformations: a materials-defined transition from macroscale to microscale deformations. <i>Soft Matter</i> , 2013, 9, 5524-5528.	1.2	36
37	Photolatently modulable hydrogels using unilamellar titania nanosheets as photocatalytic crosslinkers. <i>Nature Communications</i> , 2013, 4, 2029.	5.8	85
38	Advances in smart materials: Stimuli-responsive hydrogel thin films. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013, 51, 1084-1099.	2.4	151

#	ARTICLE	IF	CITATIONS
39	3D Microfabrication using Stimuli-Responsive Self-Folding Polymer Films. <i>Polymer Reviews</i> , 2013, 53, 92-107.	5.3	62
40	Light-Controlled Graphene-Elastin Composite Hydrogel Actuators. <i>Nano Letters</i> , 2013, 13, 2826-2830.	4.5	515
41	Capillary buckling of a thin film adhering to a sphere. <i>Journal of the Mechanics and Physics of Solids</i> , 2013, 61, 450-471.	2.3	14
42	Stimuli responsive self-folding using thin polymer films. <i>Current Opinion in Chemical Engineering</i> , 2013, 2, 112-119.	3.8	160
43	Geometric and Edge Effects on Swelling-Induced Ordered Structure Formation in Polyelectrolyte Hydrogels. <i>Macromolecules</i> , 2013, 46, 9083-9090.	2.2	17
44	Bioinspired Microorigami by Self-Folding Polymer Films. <i>Macromolecular Chemistry and Physics</i> , 2013, 214, 1178-1183.	1.1	34
45	Large-Scale Fabrication of Three-Dimensional Surface Patterns Using Template-Defined Electrochemical Deposition. <i>Advanced Functional Materials</i> , 2013, 23, 720-730.	7.8	67
46	Giant Displacements in IPMC-Based Structures: A Preliminary Study. <i>Advanced Materials Research</i> , 0, 745, 119-128.	0.3	1
47	Photoswitchable Hydrogel Surface Topographies by Polymerisation-Induced Diffusion. <i>Chemistry - A European Journal</i> , 2013, 19, 10922-10927.	1.7	44
48	Planar sheets meet negative-curvature liquid interfaces. <i>Europhysics Letters</i> , 2013, 101, 44007.	0.7	8
49	A hydrogel-based intravascular microgripper manipulated using magnetic fields. , 2013, , .		7
50	Scale-invariant growth processes in expanding space. <i>Physical Review E</i> , 2013, 87, 020102.	0.8	10
51	Subdivision shell elements with anisotropic growth. <i>International Journal for Numerical Methods in Engineering</i> , 2013, 95, 791-810.	1.5	22
52	Highly Stretchable Nanoparticle Helices Through Geometric Asymmetry and Surface Forces. <i>Advanced Materials</i> , 2013, 25, 6703-6708.	11.1	36
53	Diffusion-induced wrinkling instability in a circular poroelastic plate. <i>Applied Physics Letters</i> , 2013, 102, 241908.	1.5	5
54	Pattern selection and multiscale behaviour in metrically discontinuous non-Euclidean plates. <i>Nonlinearity</i> , 2013, 26, 3247-3258.	0.6	16
55	Simulation of Stimuli-Responsive Polymer Networks. <i>Chemosensors</i> , 2013, 1, 43-67.	1.8	8
56	Hydrogel-based actuators: possibilities and limitations. <i>Materials Today</i> , 2014, 17, 494-503.	8.3	544

#	ARTICLE	IF	CITATIONS
57	Designing biomimetic reactive polymer gels. <i>Materials Today</i> , 2014, 17, 486-493.	8.3	7
58	The role of boundary on equilibrium configuration of rotational symmetric gel sheets. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 415, 285-293.	1.2	0
59	Multimaterial polyacrylamide: fabrication with electrohydrodynamic jet printing, applications, and modeling. <i>Biofabrication</i> , 2014, 6, 035018.	3.7	12
60	Polymer origami: programming the folding with shape. <i>E-Polymers</i> , 2014, 14, 109-114.	1.3	12
61	Geometry of Thin Nematic Elastomer Sheets. <i>Physical Review Letters</i> , 2014, 113, 257801.	2.9	104
62	Understanding and Controlling the Self-Folding Behavior of Poly (N-isopropylacrylamide) Microgel-Based Devices. <i>Advanced Functional Materials</i> , 2014, 24, 4119-4126.	7.8	46
63	Swelling dynamics of a thin elastomeric sheet under uniaxial pre-stretch. <i>Journal of Applied Physics</i> , 2014, 115, 083505.	1.1	14
64	Shape-Reprogrammable Polymers: Encoding, Erasing, and Re-Encoding. <i>Advanced Materials</i> , 2014, 26, 8114-8119.	11.1	52
65	Making the Cut: Lattice Kirigami Rules. <i>Physical Review Letters</i> , 2014, 113, 245502.	2.9	123
66	Actuation and buckling effects in IPMCs. , 2014, , .		1
67	Optical and topographic changes in water-responsive patterned cholesteric liquid crystalline polymer coatings. <i>Proceedings of SPIE</i> , 2014, , .	0.8	3
68	A hydrogel-based intravascular microgripper manipulated using magnetic fields. <i>Sensors and Actuators A: Physical</i> , 2014, 211, 121-130.	2.0	98
69	Reconfigurable and actuating structures from soft materials. <i>Soft Matter</i> , 2014, 10, 1246-1263.	1.2	87
70	Defects controlled wrinkling and topological design in graphene. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 67, 2-13.	2.3	130
71	A nonlinear finite element model for the stress analysis of soft solids with a growing mass. <i>International Journal of Solids and Structures</i> , 2014, 51, 2964-2978.	1.3	13
72	Shape control of active surfaces inspired by the movement of euglenids. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 62, 99-112.	2.3	47
73	Biodegradable Self-Folding Polymer Films with Controlled Thermo-Triggered Folding. <i>Advanced Functional Materials</i> , 2014, 24, 4357-4363.	7.8	69
74	Hybrid hydrogel sheets that undergo pre-programmed shape transformations. <i>Soft Matter</i> , 2014, 10, 8157-8162.	1.2	65

#	ARTICLE	IF	CITATIONS
75	Mechanics of inhomogeneous large deformation of photo-thermal sensitive hydrogels. <i>International Journal of Solids and Structures</i> , 2014, 51, 4440-4451.	1.3	79
76	Edge-defined metric buckling of temperature-responsive hydrogel ribbons and rings. <i>Polymer</i> , 2014, 55, 5908-5914.	1.8	38
77	Periodic auto-active gels with topologically "polyrotaxane-interlocked" structures. <i>Chemical Communications</i> , 2014, 50, 6372.	2.2	13
78	Swelling-induced and controlled curving in layered gel beams. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014, 470, 20140467.	1.0	43
79	Photo-responsive polymers: properties, synthesis and applications. , 2014, , 93-133.		16
80	From nature to synthetic systems: shape transformation in soft materials. <i>Journal of Materials Chemistry B</i> , 2014, 2, 2357-2368.	2.9	175
81	Creases on the interface between two soft materials. <i>Soft Matter</i> , 2014, 10, 303-311.	1.2	32
82	Interfacial stability and shape change of anisotropic endoskeleton droplets. <i>Soft Matter</i> , 2014, 10, 7647-7652.	1.2	38
83	Stimuli-responsive buckling mechanics of polymer films. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014, 52, 1441-1461.	2.4	98
84	Buckling Instability of Self-Assembled Colloidal Columns. <i>Physical Review Letters</i> , 2014, 113, 138301.	2.9	8
85	Asymmetric water diffusion driven nanotube actuator. <i>RSC Advances</i> , 2014, 4, 17573-17578.	1.7	4
86	Control superstructure of rigid polyelectrolytes in oppositely charged hydrogels via programmed internal stress. <i>Nature Communications</i> , 2014, 5, 4490.	5.8	64
87	Bis-Aliphatic Hydrazone-Linked Hydrogels Form Most Rapidly at Physiological pH: Identifying the Origin of Hydrogel Properties with Small Molecule Kinetic Studies. <i>Chemistry of Materials</i> , 2014, 26, 2382-2387.	3.2	102
88	Using origami design principles to fold reprogrammable mechanical metamaterials. <i>Science</i> , 2014, 345, 647-650.	6.0	714
89	A Photochemical Approach to Directing Flow and Stabilizing Topography in Polymer Films. <i>Macromolecules</i> , 2014, 47, 6804-6812.	2.2	16
90	Crossover Experiments Applied to Network Formation Reactions: Improved Strategies for Counting Elastically Inactive Molecular Defects in PEG Gels and Hyperbranched Polymers. <i>Journal of the American Chemical Society</i> , 2014, 136, 9464-9470.	6.6	82
91	Surface energy gradient driven convection for generating nanoscale and microscale patterned polymer films using photosensitizers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014, 52, 1195-1202.	2.4	14
92	Tunable Swelling and Rolling of Microgel Membranes. <i>Langmuir</i> , 2014, 30, 7628-7634.	1.6	20

#	ARTICLE	IF	CITATIONS
93	Quantitative phenotyping of leaf margins in three dimensions, demonstrated on KNOTTED and TCP transgenics in Arabidopsis. <i>Journal of Experimental Botany</i> , 2014, 65, 2071-2077.	2.4	13
94	Getting into shape: How do rod-like bacteria control their geometry?. <i>Systems and Synthetic Biology</i> , 2014, 8, 227-235.	1.0	16
95	An instant multi-responsive porous polymer actuator driven by solvent molecule sorption. <i>Nature Communications</i> , 2014, 5, 4293.	5.8	446
96	Supramolecular Lego Assembly Towards Threeâ€­Dimensional Multiâ€­Responsive Hydrogels. <i>Advanced Materials</i> , 2014, 26, 5665-5669.	11.1	220
97	Functional stimuli responsive hydrogel devices by self-folding. <i>Smart Materials and Structures</i> , 2014, 23, 094008.	1.8	137
98	Stimuli sensitive polymers and self regulated drug delivery systems: A very partial review. <i>Journal of Controlled Release</i> , 2014, 190, 337-351.	4.8	106
99	Nonuniform growth and topological defects in the shaping of elastic sheets. <i>Soft Matter</i> , 2014, 10, 6382-6386.	1.2	13
100	Instability/collapse of polymeric materials and their structures in stimulus-induced shape/surface morphology switching. <i>Materials & Design</i> , 2014, 59, 176-192.	5.1	41
101	Actuating Porous Polyimide Films. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 10072-10077.	4.0	59
102	Accordionâ€­like Actuators of Multiple 3D Patterned Liquid Crystal Polymer Films. <i>Advanced Functional Materials</i> , 2014, 24, 1251-1258.	7.8	206
103	Shape-Morphing Nanocomposite Origami. <i>Langmuir</i> , 2014, 30, 5378-5385.	1.6	40
104	Unusual and Superfast Temperatureâ€­Triggered Actuators. <i>Advanced Materials</i> , 2015, 27, 4865-4870.	11.1	246
105	Photoactive Selfâ€­Shaping Hydrogels as Noncontact 3D Macro/Microscopic Photoprinting Platforms. <i>Macromolecular Rapid Communications</i> , 2015, 36, 2129-2136.	2.0	17
106	Photothermally Reprogrammable Buckling of Nanocomposite Gel Sheets. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 5434-5437.	7.2	126
107	Recent Progress on Manâ€­Made Inorganic Nanomachines. <i>Small</i> , 2015, 11, 4037-4057.	5.2	80
109	Designing two-dimensional materials that spring rapidly into three-dimensional shapes. <i>Science</i> , 2015, 347, 130-131.	6.0	15
110	Dehydration of core/shell fruits. <i>Computers and Graphics</i> , 2015, 47, 68-77.	1.4	15
111	Anisotropic Liquid Microcapsules from Biomimetic Self-Folding Polymer Films. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 12367-12372.	4.0	22

#	ARTICLE	IF	CITATIONS
112	Temperature-responsive bending of a bilayer gel. <i>International Journal of Solids and Structures</i> , 2015, 56-57, 20-28.	1.3	46
113	Roadmap to the Morphological Instabilities of a Stretched Twisted Ribbon. <i>Journal of Elasticity</i> , 2015, 119, 137-189.	0.9	57
114	Tough Al-ginate/Poly(<i>N</i> -isopropylacrylamide) Hydrogel with Tunable LCST for Soft Robotics. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 1758-1764.	4.0	350
115	Voxelated liquid crystal elastomers. <i>Science</i> , 2015, 347, 982-984.	6.0	863
116	Curvature generation in nematic surfaces. <i>Physical Review E</i> , 2015, 91, 062405.	0.8	56
117	Optimal control of plates using incompatible strains. <i>Nonlinearity</i> , 2015, 28, 3153-3174.	0.6	22
118	Bioinspired engineering of honeycomb structure – Using nature to inspire human innovation. <i>Progress in Materials Science</i> , 2015, 74, 332-400.	16.0	501
119	A multiplicative finite element algorithm for the inhomogeneous swelling of polymeric gels. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 283, 517-550.	3.4	27
120	Measuring the Elastic Modulus of Thin Polymer Sheets by Elastocapillary Bending. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 14734-14742.	4.0	25
121	Morphing of geometric composites via residual swelling. <i>Soft Matter</i> , 2015, 11, 5812-5820.	1.2	80
122	Confined disclinations: Exterior versus material constraints in developable thin elastic sheets. <i>Physical Review E</i> , 2015, 91, 022404.	0.8	14
123	Reversibly Cross-Linkable Thermoresponsive Self-Folding Hydrogel Films. <i>Langmuir</i> , 2015, 31, 4552-4557.	1.6	41
124	Oppositely Charged Polyelectrolytes Form Tough, Self-Healing, and Rebuildable Hydrogels. <i>Advanced Materials</i> , 2015, 27, 2722-2727.	11.1	545
125	Shape transformations of soft matter governed by bi-axial stresses. <i>Soft Matter</i> , 2015, 11, 4600-4605.	1.2	37
126	Sensing Solvents with Ultrasensitive Porous Poly(ionic liquid) Actuators. <i>Advanced Materials</i> , 2015, 27, 2913-2917.	11.1	141
127	Recent progress in shape memory polymer: New behavior, enabling materials, and mechanistic understanding. <i>Progress in Polymer Science</i> , 2015, 49-50, 79-120.	11.8	1,057
128	Transformative Two-Dimensional Array Configurations by Geometrical Shape-Shifting Protein Microstructures. <i>ACS Nano</i> , 2015, 9, 9708-9717.	7.3	28
129	Photopatternable Biodegradable Aliphatic Polyester with Pendent Benzophenone Groups. <i>Biomacromolecules</i> , 2015, 16, 3329-3335.	2.6	16

#	ARTICLE	IF	CITATIONS
130	Inhomogeneous stretch induced patterning of molecular orientation in liquid crystal elastomers. <i>Extreme Mechanics Letters</i> , 2015, 5, 30-36.	2.0	33
131	Cavitation in a swollen elastomer constrained by a non-swellable shell. <i>Journal of Applied Physics</i> , 2015, 117, 154901.	1.1	11
132	Geometry and mechanics of two-dimensional defects in amorphous materials. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 10873-10878.	3.3	35
133	Self-folding of polymer sheets using microwaves and graphene ink. <i>RSC Advances</i> , 2015, 5, 89254-89261.	1.7	40
134	Integrated Folding, Alignment, and Latching for Reconfigurable Origami Microelectromechanical Systems. <i>Journal of Microelectromechanical Systems</i> , 2015, 24, 1043-1051.	1.7	17
135	Programmable Liquid Crystal Elastomers Prepared by Thiol-ene Photopolymerization. <i>ACS Macro Letters</i> , 2015, 4, 942-946.	2.3	120
136	A mechanically driven form of Kirigami as a route to 3D mesostructures in micro/nanomembranes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 11757-11764.	3.3	429
137	Anisotropic swelling of thin gel sheets. <i>Soft Matter</i> , 2015, 11, 1492-1499.	1.2	34
138	Programming Reversibly Self-Folding Origami with Micropatterned Photo-Crosslinkable Polymer Trilayers. <i>Advanced Materials</i> , 2015, 27, 79-85.	11.1	381
139	Polymeric Actuators. <i>Langmuir</i> , 2015, 31, 5015-5024.	1.6	160
140	Shape-Shifting 3D Protein Microstructures with Programmable Directionality via Quantitative Nanoscale Stiffness Modulation. <i>Small</i> , 2015, 11, 740-748.	5.2	50
141	Ionoprinted Multi-Responsive Hydrogel Actuators. <i>Micromachines</i> , 2016, 7, 98.	1.4	46
142	Tuning and Erasing Surface Wrinkles by Reversible Visible-Light-Induced Photoisomerization. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 3931-3935.	7.2	124
143	Bending of Responsive Hydrogel Sheets Guided by Field-Assembled Microparticle Endoskeleton Structures. <i>Small</i> , 2016, 12, 2283-2290.	5.2	62
144	Permanently grafted icephobic nanocomposites with high abrasion resistance. <i>Journal of Materials Chemistry A</i> , 2016, 4, 11719-11728.	5.2	25
145	Tuning and Erasing Surface Wrinkles by Reversible Visible-Light-Induced Photoisomerization. <i>Angewandte Chemie</i> , 2016, 128, 3999-4003.	1.6	13
146	Isometric immersions, energy minimization and self-similar buckling in non-Euclidean elastic sheets. <i>Europhysics Letters</i> , 2016, 114, 24003.	0.7	18
147	Shape-programmable materials. <i>Physics Today</i> , 2016, 69, 32-38.	0.3	39

#	ARTICLE	IF	CITATIONS
148	Belousov-Zhabotinsky autonomic hydrogel composites: Regulating waves via asymmetry. <i>Science Advances</i> , 2016, 2, e1600813.	4.7	26
149	Reversible Self-Actuated Thermo-Responsive Pore Membrane. <i>Scientific Reports</i> , 2016, 6, 39402.	1.6	28
150	Anisotropic Swelling in Fiber-Reinforced Hydrogels: An Incremental Finite Element Method and Its Applications in Design of Bilayer Structures. <i>International Journal of Applied Mechanics</i> , 2016, 08, 1640003.	1.3	22
151	Strong and Tough Polyion-Complex Hydrogels from Oppositely Charged Polyelectrolytes: A Comparative Study with Polyampholyte Hydrogels. <i>Macromolecules</i> , 2016, 49, 2750-2760.	2.2	91
152	Tailoring the structure of polymer networks with iniferter-mediated photo-growth. <i>Polymer Chemistry</i> , 2016, 7, 2955-2964.	1.9	40
153	The metric-restricted inverse design problem. <i>Nonlinearity</i> , 2016, 29, 1769-1797.	0.6	5
154	Origami MEMS and NEMS. <i>MRS Bulletin</i> , 2016, 41, 123-129.	1.7	253
155	Design of super-conformable, foldable materials via fractal cuts and lattice kirigami. <i>MRS Bulletin</i> , 2016, 41, 130-138.	1.7	54
156	Stimuli-deformable graphene materials: from nanosheet to macroscopic assembly. <i>Materials Today</i> , 2016, 19, 146-156.	8.3	25
157	Hygromorphic Polymers: Synthesis, Retro-Michael Reaction, and Humidity-Driven Actuation of Ester- α -Sulfonyl Polyimides and Thermally Derived Copolyimides. <i>Macromolecules</i> , 2016, 49, 3286-3299.	2.2	16
158	Coupled instabilities of surface crease and bulk bending during fast free swelling of hydrogels. <i>Soft Matter</i> , 2016, 12, 5081-5088.	1.2	20
159	Responsive Shape Change of Sub-5 nm Thin, Janus Polymer Nanoplates. <i>ACS Macro Letters</i> , 2016, 5, 651-655.	2.3	49
160	Grayscale gel lithography for programmed buckling of non-Euclidean hydrogel plates. <i>Soft Matter</i> , 2016, 12, 4985-4990.	1.2	72
161	Electrically Actuated Hydraulic Solids. <i>Advanced Engineering Materials</i> , 2016, 18, 1710-1715.	1.6	36
162	Programmed Superfast Multistep Folding of Hydrogel Bilayers. <i>Advanced Functional Materials</i> , 2016, 26, 7733-7739.	7.8	77
163	Synthesis of a glucose oxidase-conjugated, polyacrylamide-based, fluorescent hydrogel for a reusable, ratiometric glucose sensor. <i>Polymer Chemistry</i> , 2016, 7, 6655-6661.	1.9	21
164	Preparation and Timed Release Properties of Self-Rupturing Gels. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 29015-29024.	4.0	10
165	Programmed planar-to-helical shape transformations of composite hydrogels with bioinspired layered fibrous structures. <i>Journal of Materials Chemistry B</i> , 2016, 4, 7075-7079.	2.9	74

#	ARTICLE	IF	CITATIONS
166	Smart Hydrogels with Inhomogeneous Structures Assembled Using Nanoclay-Cross-Linked Hydrogel Subunits as Building Blocks. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 21721-21730.	4.0	98
167	Encoding Gaussian curvature in glassy and elastomeric liquid crystal solids. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016, 472, 20160112.	1.0	64
168	Tensile Instability in a Thick Elastic Body. <i>Physical Review Letters</i> , 2016, 117, 094301.	2.9	20
169	Shape-Morphing Chromonic Liquid Crystal Hydrogels. <i>Chemistry of Materials</i> , 2016, 28, 8489-8492.	3.2	31
170	Guided Folding of Nematic Liquid Crystal Elastomer Sheets into 3D via Patterned 1D Microchannels. <i>Advanced Materials</i> , 2016, 28, 9637-9643.	11.1	131
172	Beyond developable. <i>ACM Transactions on Graphics</i> , 2016, 35, 1-11.	4.9	129
173	A bioinspired reversible snapping hydrogel assembly. <i>Materials Horizons</i> , 2016, 3, 422-428.	6.4	105
174	Mechanical Self-Assembly of a Strain-Engineered Flexible Layer: Wrinkling, Rolling, and Twisting. <i>Physical Review Applied</i> , 2016, 5, .	1.5	100
175	Anomalously Soft Non-Euclidean Springs. <i>Physical Review Letters</i> , 2016, 116, 035502.	2.9	17
176	Light-Mediated Manufacture and Manipulation of Actuators. <i>Advanced Materials</i> , 2016, 28, 8328-8343.	11.1	186
177	Reversible Modulation of DNA-Based Hydrogel Shapes by Internal Stress Interactions. <i>Journal of the American Chemical Society</i> , 2016, 138, 16112-16119.	6.6	105
178	A three-dimensional actuated origami-inspired transformable metamaterial with multiple degrees of freedom. <i>Nature Communications</i> , 2016, 7, 10929.	5.8	312
179	Fabrication of Triple-parted Stomata-inspired Membrane with Stimulus-responsive Functions. <i>Scientific Reports</i> , 2016, 6, 21258.	1.6	5
180	Smart three-dimensional lightweight structure triggered from a thin composite sheet via 3D printing technique. <i>Scientific Reports</i> , 2016, 6, 22431.	1.6	172
181	A Multiresponsive Anisotropic Hydrogel with Macroscopic 3D Complex Deformations. <i>Advanced Functional Materials</i> , 2016, 26, 8670-8676.	7.8	209
182	Soft micromachines with programmable motility and morphology. <i>Nature Communications</i> , 2016, 7, 12263.	5.8	495
183	Polymer-dispersed liquid crystal elastomers. <i>Nature Communications</i> , 2016, 7, 13140.	5.8	57
184	Stretchable Hydrogel Electronics and Devices. <i>Advanced Materials</i> , 2016, 28, 4497-4505.	11.1	550

#	ARTICLE	IF	CITATIONS
185	Surface Grafted Antimicrobial Polymer Networks with High Abrasion Resistance. ACS Biomaterials Science and Engineering, 2016, 2, 1169-1179.	2.6	49
186	Structural hydrogels. Polymer, 2016, 98, 516-535.	1.8	105
187	Bimorph Silk Microsheets with Programmable Actuating Behavior: Experimental Analysis and Computer Simulations. ACS Applied Materials & Interfaces, 2016, 8, 17694-17706.	4.0	21
188	Volume generation towards dynamic surface morphing in liquid crystal polymer networks. Liquid Crystals, 2016, 43, 2136-2143.	0.9	20
189	Shape-Changing Photodegradable Hydrogels for Dynamic 3D Cell Culture. ACS Applied Materials & Interfaces, 2016, 8, 17885-17893.	4.0	65
190	Continuum theory of swelling material surfaces with applications to thermo-responsive gel membranes and surface mass transport. Journal of the Mechanics and Physics of Solids, 2016, 89, 96-109.	2.3	20
191	Making and Remaking Dynamic 3D Structures by Shining Light on Flat Liquid Crystalline Vitrimers without a Mold. Journal of the American Chemical Society, 2016, 138, 2118-2121.	6.6	334
192	Reconfiguring Nanocomposite Liquid Crystal Polymer Films with Visible Light. Macromolecules, 2016, 49, 1575-1581.	2.2	55
193	Tough dual nanocomposite hydrogels with inorganic hybrid crosslinking. Soft Matter, 2016, 12, 1649-1654.	1.2	36
194	Shape memory polymer network with thermally distinct elasticity and plasticity. Science Advances, 2016, 2, e1501297.	4.7	406
195	2D or not 2D? Shape-programming polymer sheets. Progress in Polymer Science, 2016, 52, 79-106.	11.8	292
196	Roadmap to the Morphological Instabilities of a Stretched Twisted Ribbon. , 2016, , 137-189.		1
197	Rational design of reconfigurable prismatic architected materials. Nature, 2017, 541, 347-352.	13.7	236
198	Extreme Mechanics: Self-Folding Origami. Annual Review of Condensed Matter Physics, 2017, 8, 165-183.	5.2	55
199	Evidence for the Phospholipid Sponge Effect as the Biocidal Mechanism in Surface-Bound Polyquaternary Ammonium Coatings with Variable Cross-Linking Density. ACS Applied Materials & Interfaces, 2017, 9, 7745-7751.	4.0	37
200	Programmable and reversible assembly of soft capillary multipoles. Materials Horizons, 2017, 4, 228-235.	6.4	20
201	Reconfigurable Microscale Frameworks from Concatenated Helices with Controlled Chirality. Advanced Materials, 2017, 29, 1606111.	11.1	53
202	Switchable surface structured hydrogel coatings. Soft Matter, 2017, 13, 2239-2245.	1.2	8

#	ARTICLE	IF	CITATIONS
203	Controllable curvature from planar polymer sheets in response to light. <i>Soft Matter</i> , 2017, 13, 2299-2308.	1.2	45
204	Hierarchically Arranged Helical Fiber Actuators Derived from Commercial Cloth. <i>Advanced Materials</i> , 2017, 29, 1605103.	11.1	51
205	Energy Scaling Law for a Single Disclination in a Thin Elastic Sheet. <i>Archive for Rational Mechanics and Analysis</i> , 2017, 224, 985-1019.	1.1	12
206	Tough polyion-complex hydrogels from soft to stiff controlled by monomer structure. <i>Polymer</i> , 2017, 116, 487-497.	1.8	38
207	Shape Programming for Narrow Ribbons of Nematic Elastomers. <i>Journal of Elasticity</i> , 2017, 127, 1-24.	0.9	28
208	Shape-Morphing Materials from Stimuli-Responsive Hydrogel Hybrids. <i>Accounts of Chemical Research</i> , 2017, 50, 161-169.	7.6	360
209	Smart Actuators and Adhesives for Reconfigurable Matter. <i>Accounts of Chemical Research</i> , 2017, 50, 691-702.	7.6	151
210	Dynamic Switching of Helical Microgel Ribbons. <i>Nano Letters</i> , 2017, 17, 2010-2014.	4.5	78
211	Effect of internal architecture on microgel deformation in microfluidic constrictions. <i>Soft Matter</i> , 2017, 13, 1920-1928.	1.2	22
212	Patterning Curved Three-Dimensional Structures With Programmable Kirigami Designs. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2017, 84, .	1.1	32
213	Mechanically-Guided Deterministic Assembly of 3D Mesostructures Assisted by Residual Stresses. <i>Small</i> , 2017, 13, 1700151.	5.2	32
214	Advances in engineering hydrogels. <i>Science</i> , 2017, 356, .	6.0	1,836
215	A nonlinear beam model to describe the postbuckling of wide neo-Hookean beams. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 106, 191-206.	2.3	22
216	Solvent-driven actuators based on soft Janus films of homogeneous composition. <i>Journal of Materials Chemistry B</i> , 2017, 5, 4025-4030.	2.9	18
217	Programming 2D/3D shape-shifting with hobbyist 3D printers. <i>Materials Horizons</i> , 2017, 4, 1064-1069.	6.4	216
218	Reprogrammable Chemical 3D Shaping for Origami, Kirigami, and Reconfigurable Molding. <i>Angewandte Chemie</i> , 2017, 129, 8362-8365.	1.6	6
219	A monolithic hydro/organo macro copolymer actuator synthesized via interfacial copolymerization. <i>NPG Asia Materials</i> , 2017, 9, e380-e380.	3.8	71
220	Reprogrammable Chemical 3D Shaping for Origami, Kirigami, and Reconfigurable Molding. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8250-8253.	7.2	36

#	ARTICLE	IF	CITATIONS
221	Curvature-driven morphing of non-Euclidean shells. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170087.	1.0	32
223	Cross-linking of COOH-containing polymers using Ag(Ag^+)-catalyzed oxidative decarboxylation in aqueous solution. Soft Matter, 2017, 13, 5028-5037.	1.2	12
224	Reversible self-bending soft hydrogel microstructures with mechanically optimized designs. Chemical Engineering Journal, 2017, 321, 384-393.	6.6	39
225	Kirigami pattern design of mechanically driven formation of complex 3D structures through topology optimization. Extreme Mechanics Letters, 2017, 15, 139-144.	2.0	39
226	Rayleigh–Taylor instability in soft elastic layers. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160421.	1.6	20
227	Plates with incompatible prestrain of high order. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2017, 34, 1883-1912.	0.7	22
228	Buckling of thin gel strip under swelling. Theoretical and Applied Mechanics Letters, 2017, 7, 134-137.	1.3	8
229	Buckling of elastomer sheets under non-uniform electro-actuation. Soft Matter, 2017, 13, 2876-2885.	1.2	25
230	Fast-moving soft electronic fish. Science Advances, 2017, 3, e1602045.	4.7	621
231	Printing, folding and assembly methods for forming 3D mesostructures in advanced materials. Nature Reviews Materials, 2017, 2, .	23.3	463
232	Polydopamine nanoparticles doped in liquid crystal elastomers for producing dynamic 3D structures. Journal of Materials Chemistry A, 2017, 5, 6740-6746.	5.2	98
233	Harnessing Instabilities to Design Tunable Architected Cellular Materials. Annual Review of Materials Research, 2017, 47, 51-61.	4.3	110
234	Reprogrammable ultra-fast shape-transformation of macroporous composite hydrogel sheets. Journal of Materials Chemistry B, 2017, 5, 2883-2887.	2.9	23
235	Ultrafast Digital Printing toward 4D Shape Changing Materials. Advanced Materials, 2017, 29, 1605390.	11.1	348
236	Topography-guided buckling of swollen polymer bilayer films into three-dimensional structures. Soft Matter, 2017, 13, 956-962.	1.2	14
237	Tunable, Fast, Robust Hydrogel Actuators Based on Evaporation-Programmed Heterogeneous Structures. Chemistry of Materials, 2017, 29, 9793-9801.	3.2	98
238	Site-Specific Pre-Swelling-Directed Morphing Structures of Patterned Hydrogels. Angewandte Chemie - International Edition, 2017, 56, 15974-15978.	7.2	105
239	Strain tensor selection and the elastic theory of incompatible thin sheets. Physical Review E, 2017, 95, 053003.	0.8	12

#	ARTICLE	IF	CITATIONS
240	Stretchable surfaces with programmable 3D texture morphing for synthetic camouflaging skins. <i>Science</i> , 2017, 358, 210-214.	6.0	210
241	Growth patterns for shape-shifting elastic bilayers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 11597-11602.	3.3	96
242	Controllable Hierarchical Surface Patterns of Supramolecular Hydrogels: Harnessing Buckling Instability by Confinement. <i>Chemistry - A European Journal</i> , 2017, 23, 17444-17448.	1.7	4
243	Confinement suppresses instabilities in particle-laden droplets. <i>Scientific Reports</i> , 2017, 7, 7708.	1.6	8
244	Bioinspired Programmable Polymer Gel Controlled by Swellable Guest Medium. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 30900-30908.	4.0	38
245	Dynamic Wrinkling and Strengthening of an Elastic Filament in a Viscous Fluid. <i>Physical Review Letters</i> , 2017, 119, 088001.	2.9	16
246	Multi-responsive, bidirectional, and large deformation bending actuators based on borax cross-linked polyvinyl alcohol derivative hydrogel. <i>RSC Advances</i> , 2017, 7, 40005-40014.	1.7	26
247	Mechanically strong Janus poly(N-isopropylacrylamide)/graphene oxide hydrogels as thermo-responsive soft robots. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2017, 35, 1268-1275.	2.0	30
248	Complex shape deformations of homogeneous poly(N-isopropylacrylamide)/graphene oxide hydrogels programmed by local NIR irradiation. <i>Journal of Materials Chemistry B</i> , 2017, 5, 7997-8003.	2.9	59
249	Cooperative deformations of periodically patterned hydrogels. <i>Science Advances</i> , 2017, 3, e1700348.	4.7	100
250	Bilayered polyurethane/dipole-dipole and H-bonding interaction reinforced hydrogels as thermo-responsive soft manipulators. <i>Journal of Materials Chemistry B</i> , 2017, 5, 8193-8199.	2.9	28
251	Hydrogel Actuators as Responsive Instruments for Cheap Open Technology (HARICOT). <i>Applied Materials Today</i> , 2017, 9, 271-275.	2.3	23
252	Universal evaporation dynamics of a confined sessile droplet. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	24
253	Harnessing Photochemical Shrinkage in Direct Laser Writing for Shape Morphing of Polymer Sheets. <i>Advanced Materials</i> , 2017, 29, 1703024.	11.1	66
255	Surface Patterning of Hydrogels for Programmable and Complex Shape Deformations by Ion Inkjet Printing. <i>Advanced Functional Materials</i> , 2017, 27, 1701962.	7.8	122
257	Equilibrium of fluid membranes endowed with orientational order. <i>Physical Review E</i> , 2017, 95, 042806.	0.8	3
259	Bidirectional and biaxial curving of thermoresponsive bilayer plates with soft and stiff segments. <i>Extreme Mechanics Letters</i> , 2017, 16, 6-12.	2.0	18
260	Soft-, shape changing materials toward physicochemically powered actuators. <i>Korean Journal of Chemical Engineering</i> , 2017, 34, 2355-2365.	1.2	5

#	ARTICLE	IF	CITATIONS
261	Photothermally Triggered Shape-Adaptable 3D Flexible Electronics. <i>Advanced Materials Technologies</i> , 2017, 2, 1700120.	3.0	69
262	4D Origami by Smart Embroidery. <i>Macromolecular Rapid Communications</i> , 2017, 38, 1700213.	2.0	11
263	Site-Specific Pre-Swelling-Directed Morphing Structures of Patterned Hydrogels. <i>Angewandte Chemie</i> , 2017, 129, 16190-16194.	1.6	12
264	Swelling-induced wrinkling in layered gel beams. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2017, 473, 20170454.	1.0	11
265	3D printed reversible shape changing soft actuators assisted by liquid crystal elastomers. <i>Soft Matter</i> , 2017, 13, 5558-5568.	1.2	223
266	Freezing, morphing, and folding of stretchy tough hydrogels. <i>Journal of Materials Chemistry B</i> , 2017, 5, 5726-5732.	2.9	51
267	Engineered Elastomer Substrates for Guided Assembly of Complex 3D Mesostructures by Spatially Nonuniform Compressive Buckling. <i>Advanced Functional Materials</i> , 2017, 27, 1604281.	7.8	50
268	Origami and kirigami inspired self-folding for programming three-dimensional shape shifting of polymer sheets with light. <i>Extreme Mechanics Letters</i> , 2017, 11, 111-120.	2.0	101
269	Large-strain poroelastic plate theory for polymer gels with applications to swelling-induced morphing of composite plates. <i>Composites Part B: Engineering</i> , 2017, 115, 330-340.	5.9	20
270	Poly (<i>N</i> -isopropylacrylamide)-Clay Nanocomposite Hydrogels with Patterned Thermo-Responsive Behavior. <i>Transactions of the Materials Research Society of Japan</i> , 2017, 42, 119-122.	0.2	1
271	Thermal-induced three-dimensional shape transformations of hydrogel sheets. , 2017, , .		0
272	UCST-Type Thermoresponsive Polymers in Synthetic Lubricating Oil Polyalphaolefin (PAO). <i>Macromolecules</i> , 2018, 51, 1674-1680.	2.2	22
273	Structure and Properties of Sulfonated Pentablock Terpolymer Films as a Function of Wet-Dry Cycles. <i>Macromolecules</i> , 2018, 51, 2203-2215.	2.2	17
274	Nematic director fields and topographies of solid shells of revolution. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2018, 474, 20170566.	1.0	28
275	Nanoclay-Based Self-Supporting Responsive Nanocomposite Hydrogels for Printing Applications. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 10461-10470.	4.0	79
276	3D Nanofabrication via Chemo-Mechanical Transformation of Nanocrystal/Bulk Heterostructures. <i>Advanced Materials</i> , 2018, 30, e1800233.	11.1	15
277	Temperature-Responsive Actuators Fabricated with PVA/PNIPAAm Interpenetrating Polymer Network Bilayers. <i>Macromolecular Research</i> , 2018, 26, 659-664.	1.0	23
278	Super tough magnetic hydrogels for remotely triggered shape morphing. <i>Journal of Materials Chemistry B</i> , 2018, 6, 2713-2722.	2.9	68

#	ARTICLE	IF	CITATIONS
279	Modeling branching morphogenesis using materials with programmable mechanical instabilities. <i>Current Opinion in Biomedical Engineering</i> , 2018, 6, 66-73.	1.8	10
280	Origami-inspired, on-demand deployable and collapsible mechanical metamaterials with tunable stiffness. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 2032-2037.	3.3	274
281	Programming a crystalline shape memory polymer network with thermo- and photo-reversible bonds toward a single-component soft robot. <i>Science Advances</i> , 2018, 4, eaao3865.	4.7	360
282	Morphable 3D mesostructures and microelectronic devices by multistable buckling mechanics. <i>Nature Materials</i> , 2018, 17, 268-276.	13.3	297
283	Micro 3D Printing of a Temperature-Responsive Hydrogel Using Projection Micro-Stereolithography. <i>Scientific Reports</i> , 2018, 8, 1963.	1.6	178
284	Surface Aligned Main-Chain Liquid Crystalline Elastomers: Tailored Properties by the Choice of Amine Chain Extenders. <i>Macromolecules</i> , 2018, 51, 1141-1149.	2.2	57
285	Multitemperature Responsive Self-Folding Soft Biomimetic Structures. <i>Macromolecular Rapid Communications</i> , 2018, 39, 1700692.	2.0	40
286	Engineered Tissue Folding by Mechanical Compaction of the Mesenchyme. <i>Developmental Cell</i> , 2018, 44, 165-178.e6.	3.1	145
287	Boundary First Flattening. <i>ACM Transactions on Graphics</i> , 2018, 37, 1-14.	4.9	84
288	Controlled molecular self-assembly of complex three-dimensional structures in soft materials. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 70-74.	3.3	23
289	Mechanical metamaterials associated with stiffness, rigidity and compressibility: A brief review. <i>Progress in Materials Science</i> , 2018, 94, 114-173.	16.0	629
290	Motorizing fibres with geometric zero-energy modes. <i>Nature Materials</i> , 2018, 17, 523-527.	13.3	79
291	Porous polycarbene-bearing membrane actuator for ultrasensitive weak-acid detection and real-time chemical reaction monitoring. <i>Nature Communications</i> , 2018, 9, 1717.	5.8	42
292	Shape memory polymers for composites. <i>Composites Science and Technology</i> , 2018, 160, 169-198.	3.8	211
293	Stimuli-induced bi-directional hydrogel unimorph actuators. <i>Extreme Mechanics Letters</i> , 2018, 21, 35-43.	2.0	23
294	Thermoresponsive Deformable Actuators Prepared by Local Electrochemical Reduction of Poly(<i>N</i> -isopropylacrylamide)/Graphene Oxide Hydrogels. <i>ACS Applied Nano Materials</i> , 2018, 1, 1522-1530.	2.4	39
295	Bifurcation-enhanced ultrahigh sensitivity of a buckled cantilever. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 2884-2889.	3.3	12
296	Thermally induced reversible and reprogrammable actuation of tough hydrogels utilising ionoprinting and iron coordination chemistry. <i>Sensors and Actuators B: Chemical</i> , 2018, 254, 519-525.	4.0	16

#	ARTICLE	IF	CITATIONS
297	Inkjet Direct Laser Writing for 3D-Designed Hydrogel Composites That Undergo Complex Self-Shaping. <i>Advanced Science</i> , 2018, 5, 1700038.	5.6	46
298	Programming the shape-shifting of flat soft matter. <i>Materials Today</i> , 2018, 21, 144-163.	8.3	188
299	Spontaneous morphing of equibiaxially pre-stretched elastic bilayers: The role of sample geometry. <i>International Journal of Mechanical Sciences</i> , 2018, 149, 481-486.	3.6	16
300	An instant responsive polymer driven by anisotropy of crystal phases. <i>Materials Horizons</i> , 2018, 5, 99-107.	6.4	50
301	Bioinspired Anisotropic Hydrogel Actuators with On/Off Switchable and Color-Tunable Fluorescence Behaviors. <i>Advanced Functional Materials</i> , 2018, 28, 1704568.	7.8	353
302	Spatially Configuring Wrinkle Pattern and Multiscale Surface Evolution with Structural Confinement. <i>Advanced Functional Materials</i> , 2018, 28, 1704228.	7.8	28
303	From flat sheets to curved geometries: Origami and kirigami approaches. <i>Materials Today</i> , 2018, 21, 241-264.	8.3	267
304	A monolithic anti-freezing hydro/organo Janus actuator with sensitivity to the polarity of solvents. <i>RSC Advances</i> , 2018, 8, 35094-35101.	1.7	12
305	Mechanics of biomimetic 4D printed structures. <i>Soft Matter</i> , 2018, 14, 8771-8779.	1.2	22
306	Shape-morphing architected sheets with non-periodic cut patterns. <i>Soft Matter</i> , 2018, 14, 9744-9749.	1.2	72
307	Thin Structures With Imposed Metric. <i>ESAIM Proceedings and Surveys</i> , 2018, 62, 79-90.	0.5	5
308	Synergistic pH and Temperature-Driven Actuation of Poly(NIPAM-co-DMAPMA)/Clay Nanocomposite Hydrogel Bilayers. <i>ACS Omega</i> , 2018, 3, 17914-17921.	1.6	21
309	Localized Self-Growth of Reconfigurable Architectures Induced by a Femtosecond Laser on a Shape-Memory Polymer. <i>Advanced Materials</i> , 2018, 30, e1803072.	11.1	55
310	Digital coding of mechanical stress in a dynamic covalent shape memory polymer network. <i>Nature Communications</i> , 2018, 9, 4002.	5.8	109
311	Smart composite hydrogel with pH-, ionic strength- and temperature-induced actuation. <i>Soft Matter</i> , 2018, 14, 8401-8407.	1.2	79
312	Snap-Buckling Motivated Controllable Jumping of Thermo-Responsive Hydrogel Bilayers. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 41724-41731.	4.0	90
313	Versatile Approach to Building Dynamic Covalent Polymer Networks by Stimulating the Dormant Groups. <i>ACS Macro Letters</i> , 2018, 7, 1371-1375.	2.3	13
314	3D shape change of multi-responsive hydrogels based on a light-programmed gradient in volume phase transition. <i>Chemical Communications</i> , 2018, 54, 10909-10912.	2.2	28

#	ARTICLE	IF	CITATIONS
315	A Self-Folding Polymer Film Based on Swelling Metal-Organic Frameworks. <i>Angewandte Chemie</i> , 2018, 130, 15646-15650.	1.6	14
316	A Self-Folding Polymer Film Based on Swelling Metal-Organic Frameworks. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 15420-15424.	7.2	71
317	Growth of form in thin elastic structures. <i>Soft Matter</i> , 2018, 14, 8361-8371.	1.2	6
318	Bioinspired 3D structures with programmable morphologies and motions. <i>Nature Communications</i> , 2018, 9, 3705.	5.8	151
319	Helical Structures Mimicking Chiral Seedpod Opening and Tendril Coiling. <i>Sensors</i> , 2018, 18, 2973.	2.1	39
320	Buckling-Based Non-Linear Mechanical Sensor. <i>Sensors</i> , 2018, 18, 2637.	2.1	5
321	Shape changing hydrogels and their applications as soft actuators. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2018, 56, 1314-1324.	2.4	69
322	Shape memory polymers for self-folding via compression of thermoplastic sheets. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46889.	1.3	6
323	Suppression of coffee ring: (Particle) size matters. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	34
324	Solvent-assisted programming of flat polymer sheets into reconfigurable and self-healing 3D structures. <i>Nature Communications</i> , 2018, 9, 1906.	5.8	108
325	Bio-inspired soft robotics: Material selection, actuation, and design. <i>Extreme Mechanics Letters</i> , 2018, 22, 51-59.	2.0	247
326	Controlled mechanical assembly of complex 3D mesostructures and strain sensors by tensile buckling. <i>Npj Flexible Electronics</i> , 2018, 2, .	5.1	31
327	A rapidly responsive photochromic hydrogel with high mechanical strength for ink-free printing. <i>Journal of Materials Chemistry C</i> , 2018, 6, 7619-7625.	2.7	31
328	Phase Transitions and Pattern Formation in Chemo-Responsive Gels and Composites. <i>Israel Journal of Chemistry</i> , 2018, 58, 693-705.	1.0	4
329	Universal inverse design of surfaces with thin nematic elastomer sheets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 7206-7211.	3.3	213
330	Origami/Kirigami-Guided Morphing of Composite Sheets. <i>Advanced Functional Materials</i> , 2018, 28, 1802768.	7.8	48
331	A blister-like soft nano-textured thermo-pneumatic actuator as an artificial muscle. <i>Nanoscale</i> , 2018, 10, 16591-16600.	2.8	26
332	Programmed Deformations of 3D-Printed Tough Physical Hydrogels with High Response Speed and Large Output Force. <i>Advanced Functional Materials</i> , 2018, 28, 1803366.	7.8	172

#	ARTICLE	IF	CITATIONS
333	Physical simulation of environmentally induced thin shell deformation. <i>ACM Transactions on Graphics</i> , 2018, 37, 1-13.	4.9	20
334	Shape morphing of anisotropy-encoded tough hydrogels enabled by asymmetrically-induced swelling and site-specific mechanical strengthening. <i>Journal of Materials Chemistry B</i> , 2018, 6, 4731-4737.	2.9	21
335	Reagent-free mechanical patterning of gelatin surfaces by two-step electron irradiation treatment. <i>Materials and Design</i> , 2018, 153, 80-85.	3.3	5
336	4D Printed Actuators with Soft-Robotic Functions. <i>Macromolecular Rapid Communications</i> , 2018, 39, 1700710.	2.0	268
337	Microgel-Enhanced Double Network Hydrogel Electrode with High Conductivity and Stability for Intrinsically Stretchable and Flexible All-Gel-State Supercapacitor. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 19323-19330.	4.0	62
338	The Mechanics of Leaf Growth on Large Scales. , 2018, , 109-126.		7
339	Soft mechanical metamaterials with unusual swelling behavior and tunable stress-strain curves. <i>Science Advances</i> , 2018, 4, eaar8535.	4.7	159
340	Printing ferromagnetic domains for untethered fast-transforming soft materials. <i>Nature</i> , 2018, 558, 274-279.	13.7	1,426
341	Covalent-supramolecular hybrid polymers as muscle-inspired anisotropic actuators. <i>Nature Communications</i> , 2018, 9, 2395.	5.8	102
342	Fabricating 3D Structures by Combining 2D Printing and Relaxation of Strain. <i>Advanced Materials Technologies</i> , 2019, 4, 1800299.	3.0	36
343	Heterogeneous elastic plates with in-plane modulation of the target curvature and applications to thin gel sheets. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2019, 25, 24.	0.7	6
344	Swelling-induced eversion and flattening in naturally curved gel beams. <i>International Journal of Mechanical Sciences</i> , 2019, 161-162, 105071.	3.6	3
345	Shape and fluctuations of frustrated self-assembled nano ribbons. <i>Nature Communications</i> , 2019, 10, 3565.	5.8	24
346	Enabling Robust Self-Folding Origami by Pre-Biasing Vertex Buckling Direction. <i>Advanced Materials</i> , 2019, 31, e0193006.	11.1	32
347	Advances in biomimetic stimuli responsive soft grippers. <i>Nano Convergence</i> , 2019, 6, 20.	6.3	55
348	Morphodynamic Tissues via Integrated Programmable Shape Memory Actuators. <i>Advanced Functional Materials</i> , 2019, 29, 1903327.	7.8	6
349	Programmable Multistable Hydrogel Morphs. <i>Advanced Intelligent Systems</i> , 2019, 1, 1900055.	3.3	14
350	Controlled 3D Shape Transformation Activated by Room Temperature Stretching and Release of a Flat Polymer Sheet. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 30308-30316.	4.0	8

#	ARTICLE	IF	CITATIONS
351	Voltage-controlled morphing of dielectric elastomer circular sheets into conical surfaces. <i>Extreme Mechanics Letters</i> , 2019, 30, 100504.	2.0	30
352	Micro/Nanoscale 3D Assembly by Rolling, Folding, Curving, and Buckling Approaches. <i>Advanced Materials</i> , 2019, 31, e1901895.	11.1	84
353	Stick-On Large-Strain Sensors for Soft Robots. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900985.	1.9	79
354	Alkaline monomer for mechanical enhanced and self-healing hydrogels based on dynamic borate ester bonds. <i>Polymer</i> , 2019, 184, 121882.	1.8	34
355	Enforcing shaping of thin gel sheets by anisotropic swelling. <i>Mechanics of Materials</i> , 2019, 139, 103199.	1.7	4
356	Thermo- and photo-responsive composite hydrogels with programmed deformations. <i>Journal of Materials Chemistry B</i> , 2019, 7, 1674-1678.	2.9	55
357	Dispersed Association of Single-Component Short-Alkyl Chains toward Thermally Programmable and Malleable Multiple-Shape Hydrogel. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 43622-43630.	4.0	22
358	Introducing Functionality to Fluorinated Electroactive Polymers. <i>Macromolecules</i> , 2019, 52, 8503-8513.	2.2	5
359	Distinctive Performance of Terahertz Photodetection Driven by Charge-Density-Wave Order in CVD-Grown Tantalum Diselenide. <i>Advanced Functional Materials</i> , 2019, 29, 1905057.	7.8	13
360	Biasing Buckling Direction in Shape-Programmable Hydrogel Sheets with Through-Thickness Gradients. <i>Advanced Functional Materials</i> , 2019, 29, 1905273.	7.8	39
361	Semi-implicit methods for the dynamics of elastic sheets. <i>Journal of Computational Physics</i> , 2019, 399, 108952.	1.9	6
362	Foldable cones as a framework for nonrigid origami. <i>Physical Review E</i> , 2019, 100, 033003.	0.8	15
363	Geometry for evolving topographies of light-responsive plastic sheets. <i>Journal of Physics Communications</i> , 2019, 3, 065005.	0.5	1
364	Shape-shifting structured lattices via multimaterial 4D printing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 20856-20862.	3.3	257
365	Modeling the behavior of inclusions in circular plates undergoing shape changes from two to three dimensions. <i>Physical Review E</i> , 2019, 100, 043001.	0.8	7
366	Buckling of geometrically confined shells. <i>Soft Matter</i> , 2019, 15, 1215-1222.	1.2	26
367	Drilling by light: ice-templated photo-patterning enabled by a dynamically crosslinked hydrogel. <i>Materials Horizons</i> , 2019, 6, 1013-1019.	6.4	48
368	Development of a multi-position indentation setup: Mapping soft and patternable heterogeneously crosslinked polymer networks. <i>Review of Scientific Instruments</i> , 2019, 90, 015108.	0.6	10

#	ARTICLE	IF	CITATIONS
369	Synthesis and characterization of a supported ionic-liquid phase catalyst with a dual-mesoporous structure derived from poly(ionic liquids) and P123. <i>New Journal of Chemistry</i> , 2019, 43, 2899-2907.	1.4	2
370	Inherent Photodegradability of Polymethacrylate Hydrogels: Straightforward Access to Biocompatible Soft Microstructures. <i>Advanced Functional Materials</i> , 2019, 29, 1902906.	7.8	11
371	Buckling and twisting of advanced materials into morphable 3D mesostructures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 13239-13248.	3.3	81
372	A smartphone-based colorimetric PET sensor platform with molecular recognition via thermally initiated RAFT-mediated graft copolymerization. <i>Sensors and Actuators B: Chemical</i> , 2019, 296, 126653.	4.0	29
373	Light to Shape the Future: From Photolithography to 4D Printing. <i>Advanced Optical Materials</i> , 2019, 7, 1900598.	3.6	152
374	Hierarchical chemomechanical encoding of multi-responsive hydrogel actuators via 3D printing. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15395-15403.	5.2	73
375	Distortion-controlled isotropic swelling: numerical study of free boundary swelling patterns. <i>Soft Matter</i> , 2019, 15, 4890-4897.	1.2	1
376	Bending, curling, and twisting in polymeric bilayers. <i>Soft Matter</i> , 2019, 15, 4541-4547.	1.2	17
377	Light-Driven Shape Morphing, Assembly, and Motion of Nanocomposite Gel Surfers. <i>Advanced Materials</i> , 2019, 31, e1900932.	11.1	57
378	Bio-inspired sensing and actuating materials. <i>Journal of Materials Chemistry C</i> , 2019, 7, 6493-6511.	2.7	112
379	Dual-gradient enabled ultrafast biomimetic snapping of hydrogel materials. <i>Science Advances</i> , 2019, 5, eaav7174.	4.7	184
380	Molecularly-ordered hydrogels with controllable, anisotropic stimulus response. <i>Soft Matter</i> , 2019, 15, 4508-4517.	1.2	13
381	Modeling and Application of Planar to 3D Structures via Optically Programmed Frontal Photopolymerization. <i>Advanced Engineering Materials</i> , 2019, 21, 1801279.	1.6	9
382	A NURBS-based inverse analysis of thermal expansion induced morphing of thin shells. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 350, 480-510.	3.4	43
383	Elasticity and stability of shape-shifting structures. <i>Current Opinion in Colloid and Interface Science</i> , 2019, 40, 118-137.	3.4	95
384	Smart Patterned Surface with Dynamic Wrinkles. <i>Accounts of Chemical Research</i> , 2019, 52, 1025-1035.	7.6	95
385	Modeling the formation of double rolls from heterogeneously patterned gels. <i>Physical Review E</i> , 2019, 99, 033003.	0.8	7
386	New frontiers for the materials genome initiative. <i>Npj Computational Materials</i> , 2019, 5, .	3.5	312

#	ARTICLE	IF	CITATIONS
387	Multiresponsive Reversible Deformation of Patterned Polyacrylamide Hydrogel Constructed by a Computer-Assisted Dispenser. <i>ACS Applied Polymer Materials</i> , 2019, 1, 1187-1194.	2.0	5
388	Tailoring surface patterns to direct the assembly of liquid crystalline materials. <i>Liquid Crystals Reviews</i> , 2019, 7, 30-59.	1.1	20
389	Bioinspired Actuators Based on Stimuli-Responsive Polymers. <i>Chemistry - an Asian Journal</i> , 2019, 14, 2369-2387.	1.7	60
390	Poly(N,N-dimethylacrylamide)-clay nanocomposite hydrogels with patterned mechanical properties. <i>Colloid and Polymer Science</i> , 2019, 297, 587-594.	1.0	4
391	Hyperbolic origami-inspired folding of triply periodic minimal surface structures. <i>Applied Materials Today</i> , 2019, 15, 453-461.	2.3	27
392	Polyacryloyl hydrazide incorporation into ionic hydrogels improves toughness, elasticity, self-healability, adhesive & strain sensing properties. <i>Materials Chemistry Frontiers</i> , 2019, 3, 690-701.	3.2	18
393	The Pathway to Intelligence: Using Stimuli-Responsive Materials as Building Blocks for Constructing Smart and Functional Systems. <i>Advanced Materials</i> , 2019, 31, e1804540.	11.1	169
394	Transformer Hydrogels: A Review. <i>Advanced Materials Technologies</i> , 2019, 4, 1900043.	3.0	207
395	Photoresponsive Polymers. , 2019, , 87-153.		9
396	Ripples and Wrinkles in Graphene: Beyond Continuum Mechanics. , 2019, , 229-252.		2
397	Wrinkled Polymer Surfaces. , 2019, , .		11
399	Programming the deformation of a temperature-driven bilayer structure in 4D printing. <i>Smart Materials and Structures</i> , 2019, 28, 105031.	1.8	36
400	Birth and decay of tensional wrinkles in hyperelastic sheets. <i>Physical Review E</i> , 2019, 100, 053003.	0.8	6
401	Bioinspired dual-morphing stretchable origami. <i>Science Robotics</i> , 2019, 4, .	9.9	127
403	Tunable microfluidic device fabricated by femtosecond structured light for particle and cell manipulation. <i>Lab on A Chip</i> , 2019, 19, 3988-3996.	3.1	14
404	Molecularly-Engineered, 4D-Printed Liquid Crystal Elastomer Actuators. <i>Advanced Functional Materials</i> , 2019, 29, 1806412.	7.8	234
405	Progress in the Field of Water- and/or Temperature-Triggered Polymer Actuators. <i>Macromolecular Materials and Engineering</i> , 2019, 304, 1800548.	1.7	71
406	Bio-inspired pneumatic shape-morphing elastomers. <i>Nature Materials</i> , 2019, 18, 24-28.	13.3	226

#	ARTICLE	IF	CITATIONS
407	Inflating to shape. <i>Nature Materials</i> , 2019, 18, 2-3.	13.3	5
408	Sequentially Controlled Deformations of Patterned Hydrogels into 3D Configurations with Multilevel Structures. <i>Macromolecular Rapid Communications</i> , 2019, 40, e1800681.	2.0	13
409	3D Printing of Anisotropic Hydrogels with Bioinspired Motion. <i>Advanced Science</i> , 2019, 6, 1800703.	5.6	85
410	Adaptive locomotion of artificial microswimmers. <i>Science Advances</i> , 2019, 5, eaau1532.	4.7	203
411	Recent Progress in Biomimetic Anisotropic Hydrogel Actuators. <i>Advanced Science</i> , 2019, 6, 1801584.	5.6	403
412	Reconfigurable shape-morphing dielectric elastomers using spatially varying electric fields. <i>Nature Communications</i> , 2019, 10, 183.	5.8	125
413	A Highly Stretchable Tough Polymer Actuator Driven by Acetone Vapors. <i>Macromolecular Materials and Engineering</i> , 2019, 304, 1800501.	1.7	7
414	Smart helical structures inspired by the pellicle of euglenids. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 123, 234-246.	2.3	16
415	Photolithographically Patterned Hydrogels with Programmed Deformations. <i>Chemistry - an Asian Journal</i> , 2019, 14, 94-104.	1.7	25
416	On the lifetime of evaporating confined sessile droplets. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 560, 78-83.	2.3	11
417	Smart materials in additive manufacturing: state of the art and trends. <i>Virtual and Physical Prototyping</i> , 2019, 14, 1-18.	5.3	106
418	Four-dimensional direct laser writing of reconfigurable compound micromachines. <i>Materials Today</i> , 2020, 32, 19-25.	8.3	131
419	Morphable structures from unicellular organisms with active, shape-shifting envelopes: Variations on a theme by Gauss. <i>International Journal of Non-Linear Mechanics</i> , 2020, 118, 103278.	1.4	17
420	Stimuli-responsive anisotropic actuation of melem-formaldehyde polymer. <i>Materials Horizons</i> , 2020, 7, 149-156.	6.4	13
421	Polymernetzwerke: Von Kunststoffen und Gelen zu porösen Gerüsten. <i>Angewandte Chemie</i> , 2020, 132, 5054-5085.	1.6	16
422	Polymer Networks: From Plastics and Gels to Porous Frameworks. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 5022-5049.	7.2	194
423	Botanical-Inspired 4D Printing of Hydrogel at the Microscale. <i>Advanced Functional Materials</i> , 2020, 30, 1907377.	7.8	122
424	Dimension Reduction for Thin Films with Transversally Varying Prestrain: Oscillatory and Nonoscillatory Cases. <i>Communications on Pure and Applied Mathematics</i> , 2020, 73, 1880-1932.	1.2	10

#	ARTICLE	IF	CITATIONS
425	Topographic Mechanics and Applications of Liquid Crystalline Solids. <i>Annual Review of Condensed Matter Physics</i> , 2020, 11, 125-145.	5.2	58
426	Enhanced mechanical properties and self-healing behavior of PNIPAM nanocomposite hydrogel by using POSS as a physical crosslinker. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48486.	1.3	14
427	Microfabrication Using Shape-Transforming Soft Materials. <i>Advanced Functional Materials</i> , 2020, 30, 1908028.	7.8	43
428	Simultaneous control of Gaussian curvature and buckling direction by swelling of asymmetric trilayer hydrogel hybrids. <i>Soft Matter</i> , 2020, 16, 688-694.	1.2	13
429	Nanofabrication approaches for functional three-dimensional architectures. <i>Nano Today</i> , 2020, 30, 100825.	6.2	37
430	Reprogrammable 3D Shaping from Phase Change Microstructures in Elastic Composites. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 4014-4021.	4.0	6
431	Artificial Perspiration Membrane by Programmed Deformation of Thermoresponsive Hydrogels. <i>Advanced Materials</i> , 2020, 32, e1905901.	11.1	17
432	Wetting of soap bubbles on soft elastomers with surface stress and gravity. <i>Mathematics and Mechanics of Solids</i> , 2020, 25, 791-803.	1.5	2
434	Dynamics of active swelling in contractile polymer gels. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 135, 103807.	2.3	8
435	Responsive and Foldable Soft Materials. <i>Trends in Chemistry</i> , 2020, 2, 107-122.	4.4	46
436	Highly stretchable, recyclable, notch-insensitive, and conductive polyacrylonitrile-derived organogel. <i>Journal of Materials Chemistry A</i> , 2020, 8, 20346-20353.	5.2	36
437	Self-Oscillating Membranes: Chemomechanical Sheets Show Autonomous Periodic Shape Transformation. <i>Physical Review Letters</i> , 2020, 125, 178001.	2.9	18
438	Shape Programming by Modulating Actuation over Hierarchical Length Scales. <i>Advanced Materials</i> , 2020, 32, e2004515.	11.1	7
439	Recent advances in additive manufacturing of active mechanical metamaterials. <i>Current Opinion in Solid State and Materials Science</i> , 2020, 24, 100869.	5.6	65
440	Light-steered locomotion of muscle-like hydrogel by self-coordinated shape change and friction modulation. <i>Nature Communications</i> , 2020, 11, 5166.	5.8	148
441	Shape-adaptable biodevices for wearable and implantable applications. <i>Lab on A Chip</i> , 2020, 20, 4321-4341.	3.1	27
442	New Morphogenetic Strategy Inspired by the Viscoelasticity of Polymers. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 36620-36627.	4.0	2
443	Adhesion of a cell on a prestretched elastomer incorporating gravity effect. <i>European Journal of Mechanics, A/Solids</i> , 2020, 84, 104077.	2.1	2

#	ARTICLE	IF	CITATIONS
444	Photoregulated Gradient Structure and Programmable Mechanical Performances of Tough Hydrogels with a Hydrogen-Bond Network. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 53376-53384.	4.0	17
445	Defective nematogenesis: Gauss curvature in programmable shape-responsive sheets with topological defects. <i>Soft Matter</i> , 2020, 16, 10935-10945.	1.2	15
446	A Photoresponsive Hydrogel with Enhanced Photoefficiency and the Decoupled Process of Light Activation and Shape Changing for Precise Geometric Control. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 38647-38654.	4.0	17
447	Programming stiff inflatable shells from planar patterned fabrics. <i>Soft Matter</i> , 2020, 16, 7898-7903.	1.2	27
448	Glucose-Responsive Actuators Based on Bigel Strip from Host-Guest Assembly Between a β -Cyclodextrin-Based Host Gel and a Ferrocene-Based Guest Gel. <i>ChemistrySelect</i> , 2020, 5, 8858-8863.	0.7	4
449	Reconfiguring Gaussian Curvature of Hydrogel Sheets with Photoswitchable Host-Guest Interactions. <i>ACS Macro Letters</i> , 2020, 9, 1172-1177.	2.3	24
450	Extrusion 3D Printing of Polymeric Materials with Advanced Properties. <i>Advanced Science</i> , 2020, 7, 2001379.	5.6	171
451	Modeling solvent dynamics in polymers with solvent-filled cavities. <i>Mechanics of Soft Materials</i> , 2020, 2, 1.	0.4	2
452	Multimaterial bioprinting minus the printer: Synthetic bacterial patterning with UV-responsive genetic circuits. <i>International Journal of Architectural Computing</i> , 2021, 19, 121-141.	0.9	2
453	Four-Dimensional Printed Liquid Crystalline Elastomer Actuators with Fast Photoinduced Mechanical Response toward Light-Driven Robotic Functions. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 44195-44204.	4.0	77
454	Electroosmosis-Driven Hydrogel Actuators Using Hydrophobic/Hydrophilic Layer-By-Layer Assembly-Induced Crack Electrodes. <i>ACS Nano</i> , 2020, 14, 11906-11918.	7.3	31
455	Shape morphing smart 3D actuator materials for micro soft robot. <i>Materials Today</i> , 2020, 41, 243-269.	8.3	130
456	Intelligent Polymer-Based Bioinspired Actuators: From Monofunction to Multifunction. <i>Advanced Intelligent Systems</i> , 2020, 2, 2000138.	3.3	33
457	Buckling and metastability in membranes with dilation arrays. <i>Physical Review E</i> , 2020, 102, 033002.	0.8	11
458	Foundations for Soft, Smart Matter by Active Mechanical Metamaterials. <i>Advanced Science</i> , 2020, 7, 2001384.	5.6	52
459	Inflationary routes to Gaussian curved topography. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020, 476, 20200047.	1.0	10
460	Laser reprogramming magnetic anisotropy in soft composites for reconfigurable 3D shaping. <i>Nature Communications</i> , 2020, 11, 6325.	5.8	113
461	Buckling-induced interaction between circular inclusions in an infinite thin plate. <i>Physical Review E</i> , 2020, 102, 033004.	0.8	5

#	ARTICLE	IF	CITATIONS
462	Programmable Reversible Shape Transformation of Hydrogels Based on Transient Structural Anisotropy. <i>Advanced Materials</i> , 2020, 32, e2001693.	11.1	77
463	Recent progress of morphable 3D mesostructures in advanced materials. <i>Journal of Semiconductors</i> , 2020, 41, 041604.	2.0	9
464	Functionalizing Double-Network Hydrogels for Applications in Remote Actuation and in Low-Temperature Strain Sensing. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 30247-30258.	4.0	93
465	Repulsion of Polar Gels From Water: Hydration-Triggered Actuation, Self-Folding, and 3D Fabrication. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000509.	1.9	3
466	Modular 4D Printing via Interfacial Welding of Digital Light-Controllable Dynamic Covalent Polymer Networks. <i>Matter</i> , 2020, 2, 1187-1197.	5.0	94
467	Hydrogel-Based Artificial Muscles: Overview and Recent Progress. <i>Advanced Intelligent Systems</i> , 2020, 2, 1900135.	3.3	103
468	Moulding three-dimensional curved structures by selective heating. <i>Royal Society Open Science</i> , 2020, 7, 200011.	1.1	0
469	Nonuniform growth and surface friction determine bacterial biofilm morphology on soft substrates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 7622-7632.	3.3	82
470	Multi-responsive hydrogel structures from patterned droplet networks. <i>Nature Chemistry</i> , 2020, 12, 363-371.	6.6	148
471	Light-Coded Digital Crystallinity Patterns Toward Bioinspired 4D Transformation of Shape-Memory Polymers. <i>Advanced Functional Materials</i> , 2020, 30, 2000522.	7.8	55
472	Blueprinting Photothermal Shape-Morphing of Liquid Crystal Elastomers. <i>Advanced Materials</i> , 2020, 32, e2000609.	11.1	110
473	Elastic buckling of a free-standing annulus subjected to partial shrinkage. <i>International Journal of Mechanical Sciences</i> , 2020, 177, 105610.	3.6	0
474	Materials as Machines. <i>Advanced Materials</i> , 2020, 32, e1906564.	11.1	213
475	The Mathematics of Mechanobiology. <i>Lecture Notes in Mathematics</i> , 2020, , .	0.1	2
476	Multifunctional soft machines based on stimuli-responsive hydrogels: from freestanding hydrogels to smart integrated systems. <i>Materials Today Advances</i> , 2020, 8, 100088.	2.5	67
477	Chemically controlled shape-morphing of elastic sheets. <i>Materials Horizons</i> , 2020, 7, 2314-2327.	6.4	13
478	Materials, design, and fabrication of shape programmable polymers. <i>Multifunctional Materials</i> , 2020, 3, 032002.	2.4	17
479	Navigating the landscape of nonlinear mechanical metamaterials for advanced programmability. <i>Physical Review B</i> , 2020, 101, .	1.1	22

#	ARTICLE	IF	CITATIONS
480	Mechanically programmed 2D and 3D liquid crystal elastomers at macro- and microscale via two-step photocrosslinking. <i>Soft Matter</i> , 2020, 16, 2695-2705.	1.2	23
481	Highly stretchable hydrogels for sensitive pressure sensor and programmable surface patterning by thermal bubble inkjet technology. <i>Journal of Applied Polymer Science</i> , 2020, 137, 49146.	1.3	8
482	Deterministic Self-Morphing of Soft-Stiff Hybridized Polymeric Films for Acoustic Metamaterials. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 13378-13385.	4.0	23
483	Bioinspired underwater locomotion of light-driven liquid crystal gels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 5125-5133.	3.3	237
484	Modular Soft Robotics: Modular Units, Connection Mechanisms, and Applications. <i>Advanced Intelligent Systems</i> , 2020, 2, 1900166.	3.3	47
485	4D Printing of a Light-Driven Soft Actuator with Programmed Printing Density. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 12176-12185.	4.0	110
486	Spatial Manipulation and Integration of Supramolecular Filaments on Hydrogel Substrates towards Advanced Soft Devices. <i>Angewandte Chemie</i> , 2020, 132, 8679-8685.	1.6	1
487	Spatial Manipulation and Integration of Supramolecular Filaments on Hydrogel Substrates towards Advanced Soft Devices. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 8601-8607.	7.2	7
488	Cell-Instructive Multiphasic Gel-In-Gel Materials. <i>Advanced Functional Materials</i> , 2020, 30, 1908857.	7.8	34
489	Multipolar spatial electric field modulation for freeform electroactive hydrogel actuation. <i>Scientific Reports</i> , 2020, 10, 2482.	1.6	18
490	Computational design of shape-programmable gel plates. <i>Mechanics of Materials</i> , 2020, 144, 103313.	1.7	5
491	Programming temporal morphing of self-actuated shells. <i>Nature Communications</i> , 2020, 11, 237.	5.8	65
492	Shape-morphing living composites. <i>Science Advances</i> , 2020, 6, eaax8582.	4.7	53
493	Non-equilibrium signal integration in hydrogels. <i>Nature Communications</i> , 2020, 11, 386.	5.8	38
494	Hydrogel machines. <i>Materials Today</i> , 2020, 36, 102-124.	8.3	625
495	Mechanics-guided design of shape-morphing composite sheets with hard and soft materials. <i>Extreme Mechanics Letters</i> , 2020, 35, 100643.	2.0	8
496	Uniaxial stretching mechanics of cellular flexible metamaterials. <i>Extreme Mechanics Letters</i> , 2020, 35, 100637.	2.0	15
497	Four-dimensional micro-building blocks. <i>Science Advances</i> , 2020, 6, eaav8219.	4.7	81

#	ARTICLE	IF	CITATIONS
498	Thickness estimation of the silica-like thin layers via swelling-driven wrinkling instability. <i>Thin Solid Films</i> , 2020, 697, 137812.	0.8	1
499	3D electronic and photonic structures as active biological interfaces. <i>Informa-Ån-Å-Materi-Åily</i> , 2020, 2, 527-552.	8.5	17
501	Kirigami/origami: unfolding the new regime of advanced 3D microfabrication/nanofabrication with -œfolding- Light: Science and Applications, 2020, 9, 75.	7.7	112
502	Quantitative Immersability of Riemann Metrics and the Infinite Hierarchy of Prestrained Shell Models. <i>Archive for Rational Mechanics and Analysis</i> , 2020, 236, 1677-1707.	1.1	8
503	Anisotropic Hydrogels with High Mechanical Strength by Stretching-Induced Oriented Crystallization and Drying. <i>ACS Applied Polymer Materials</i> , 2020, 2, 2142-2150.	2.0	11
504	Kirigami-Design-Enabled Hydrogel Multimorphs with Application as a Multistate Switch. <i>Advanced Materials</i> , 2020, 32, e2000781.	11.1	93
505	Poly(N-isopropylacrylamide)-based smart hydrogels: Design, properties and applications. <i>Progress in Materials Science</i> , 2021, 115, 100702.	16.0	402
506	Smart Polymers for Microscale Machines. <i>Advanced Functional Materials</i> , 2021, 31, 2007125.	7.8	48
507	Suppression of coffee ring effect in high molecular weight polyacrylamide droplets evaporating on hydrophobic surfaces. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 612, 126002.	2.3	9
508	Shape memory materials with reversible shape change and self-healing abilities: A review. <i>Materials Today: Proceedings</i> , 2021, 44, 4563-4568.	0.9	6
509	From prevention to diagnosis and treatment: Biomedical applications of metal nanoparticle-hydrogel composites. <i>Acta Biomaterialia</i> , 2021, 122, 1-25.	4.1	57
510	Electrical Writing to Three-Dimensional Pattern Dynamic Polysaccharide Hydrogel for Programmable Shape Deformation. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2000342.	2.0	7
511	Introduction to 4D printing. , 2021, , 303-342.		6
512	Gaussian-preserved, non-volatile shape morphing in three-dimensional microstructures for dual-functional electronic devices. <i>Nature Communications</i> , 2021, 12, 509.	5.8	19
513	Ionic shape-morphing microrobotic end-effectors for environmentally adaptive targeting, releasing, and sampling. <i>Nature Communications</i> , 2021, 12, 411.	5.8	87
514	Programmable shape-shifting 3D structures via frontal photopolymerization. <i>Materials and Design</i> , 2021, 198, 109381.	3.3	8
515	A macroporous smart gel based on a pH-sensitive polyacrylic polymer for the development of large size artificial muscles with linear contraction. <i>Soft Matter</i> , 2021, 17, 9644-9652.	1.2	5
516	Heterogeneous Hydrogel Structures with Spatiotemporal Reconfigurability using Addressable and Tunable Voxels. <i>Advanced Materials</i> , 2021, 33, e2005906.	11.1	37

#	ARTICLE	IF	CITATIONS
517	Distributed Branch Points and the Shape of Elastic Surfaces with Constant Negative Curvature. <i>Journal of Nonlinear Science</i> , 2021, 31, 1.	1.0	3
518	Friction-directed self-assembly of Janus lithographic microgels into anisotropic 2D structures. <i>Journal of Materials Chemistry B</i> , 2021, 9, 4718-4725.	2.9	6
519	A programmable powerful and ultra-fast water-driven soft actuator inspired by the mutable collagenous tissue of the sea cucumber. <i>Journal of Materials Chemistry A</i> , 2021, 9, 15937-15947.	5.2	8
520	A photo-driven metallo-supramolecular stress-free reversible shape memory polymer. <i>Journal of Materials Chemistry A</i> , 2021, 9, 6827-6830.	5.2	30
521	Self-Morphing, Chemically Driven Gears and Machines. <i>Matter</i> , 2021, 4, 600-617.	5.0	9
522	Enhancing response time of micro-patterned thermoresponsive hydrogels by incorporation of pores. <i>Korean Journal of Chemical Engineering</i> , 2021, 38, 645-651.	1.2	0
523	Development of Therminks for 4D Direct Printing of Temperature-Induced Self-Rolling Hydrogel Actuators. <i>Advanced Functional Materials</i> , 2021, 31, 2009664.	7.8	43
524	Euclidean Frustrated Ribbons. <i>Physical Review X</i> , 2021, 11, .	2.8	5
525	Monolithic Three-Dimensional Functionally Graded Hydrogels for Bioinspired Soft Robots Fabrication. <i>Soft Robotics</i> , 2021, , .	4.6	10
526	Uniaxial Negative Thermal Expansion in Polymorphic 2-Bromobenzophenone, Due to Aromatic Interactions?. <i>Crystal Growth and Design</i> , 2021, 21, 2167-2175.	1.4	3
527	Biologically controlled gelatin actuators. <i>Green Materials</i> , 2021, 9, 157-166.	1.1	7
528	Chemical pumps and flexible sheets spontaneously form self-regulating oscillators in solution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	41
529	Autonomous Shapeshifting Hydrogels via Temporal Programming of Photoswitchable Dynamic Network. <i>Chemistry of Materials</i> , 2021, 33, 2046-2053.	3.2	29
530	Reconstructable Gradient Structures and Reprogrammable 3D Deformations of Hydrogels with Coumarin Units as the Photolabile Crosslinks. <i>Advanced Materials</i> , 2021, 33, e2008057.	11.1	82
531	Dimension reduction for thin films prestrained by shallow curvature. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2021, 477, .	1.0	0
532	Cell-Laden Multiple-Step and Reversible 4D Hydrogel Actuators to Mimic Dynamic Tissue Morphogenesis. <i>Advanced Science</i> , 2021, 8, 2004616.	5.6	40
533	Mechanical Adaptability of Patterns in Constrained Hydrogel Membranes. <i>Langmuir</i> , 2021, 37, 4900-4912.	1.6	5
534	Large deformation analysis of spontaneous twist and contraction in nematic elastomer fibers with helical director. <i>Journal of Applied Physics</i> , 2021, 129, .	1.1	7

#	ARTICLE	IF	CITATIONS
535	On-board Mechanical Control Systems for Untethered Microrobots. <i>Advanced Intelligent Systems</i> , 0, , 2000233.	3.3	10
536	Dielectric elastomer actuators. <i>Journal of Applied Physics</i> , 2021, 129, .	1.1	88
537	Robotic surfaces with reversible, spatiotemporal control for shape morphing and object manipulation. <i>Science Robotics</i> , 2021, 6, .	9.9	70
538	Bioinspired Dual-Mode Temporal Communication via Digitally Programmable Phase-Change Materials. <i>Advanced Materials</i> , 2021, 33, e2008119.	11.1	40
539	A panther chameleon skin-inspired core-shell supramolecular hydrogel with spatially organized multi-luminogens enables programmable color change. <i>Cell Reports Physical Science</i> , 2021, 2, 100417.	2.8	22
540	Morphing pasta and beyond. <i>Science Advances</i> , 2021, 7, .	4.7	43
541	Deployable Structures Based on Buckling of Curved Beams Upon a Rotational Input. <i>Advanced Functional Materials</i> , 2021, 31, 2101144.	7.8	9
542	PEG-Induced Controllable Thin-Thickness Gradient and Water Retention: A Simple Way to Programme Deformation of Hydrogel Actuators. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2000749.	2.0	7
543	Curvature Induced by Deflection in Thick Meta-Plates. <i>Advanced Materials</i> , 2021, 33, e2008082.	11.1	22
544	Kirigami-inspired synthesis of functional mesoporous nanospheres through spray drying of holey nanosheets. <i>Carbon</i> , 2021, 178, 382-390.	5.4	3
545	A total-Lagrangian material point method for coupled growth and massive deformation of incompressible soft materials. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 6180-6202.	1.5	10
546	4D Printing of Multi-Responsive Membrane for Accelerated In Vivo Bone Healing Via Remote Regulation of Stem Cell Fate. <i>Advanced Functional Materials</i> , 2021, 31, 2103920.	7.8	48
547	Computational design of multi-stable, reconfigurable surfaces. <i>Materials and Design</i> , 2021, 205, 109688.	3.3	9
548	A Microfluidic Model Artery for Studying the Mechanobiology of Endothelial Cells. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100508.	3.9	1
549	Autonomous Off-Equilibrium Morphing Pathways of a Supramolecular Shape-Memory Polymer. <i>Advanced Materials</i> , 2021, 33, e2102473.	11.1	47
550	Visible-light-driven isotropic hydrogels as anisotropic underwater actuators. <i>Nano Energy</i> , 2021, 85, 105965.	8.2	57
551	Nature's forms are frilly, flexible, and functional. <i>European Physical Journal E</i> , 2021, 44, 95.	0.7	2
552	Fractional Excitations in Non-Euclidean Elastic Plates. <i>Physical Review Letters</i> , 2021, 127, 098001.	2.9	5

#	ARTICLE	IF	CITATIONS
553	A Unifying View of Thin-Plate Fracture. <i>Physics Magazine</i> , 0, 14, .	0.1	0
554	Mechanical Deconvolution of Elastic Moduli by Indentation of Mechanically Heterogeneous Materials. <i>Frontiers in Physics</i> , 2021, 9, .	1.0	1
555	Buckling-Fracture Transition and the Geometrical Charge of a Crack. <i>Physical Review Letters</i> , 2021, 127, 105501.	2.9	5
556	Thermo-Responsive Hydrogel-Based Soft Valves with Annular Actuation Calibration and Circumferential Gripping. <i>Bioengineering</i> , 2021, 8, 127.	1.6	3
557	Multivalued Inverse Design: Multiple Surface Geometries from One Flat Sheet. <i>Physical Review Letters</i> , 2021, 127, 128001.	2.9	7
558	Cephalopodâ€inspired Stretchable Selfâ€Morphing Skin Via Embedded Printing and Twisted Spiral Artificial Muscles. <i>Advanced Functional Materials</i> , 2021, 31, 2105528.	7.8	15
559	Reconfiguration of multistable 3D ferromagnetic mesostructures guided by energy landscape surveys. <i>Extreme Mechanics Letters</i> , 2021, 48, 101428.	2.0	8
560	Recent progress on hydrogel actuators. <i>Journal of Materials Chemistry B</i> , 2021, 9, 1762-1780.	2.9	69
561	2D material programming for 3D shaping. <i>Nature Communications</i> , 2021, 12, 603.	5.8	43
562	Mechanochemical induction of wrinkling morphogenesis on elastic shells. <i>Soft Matter</i> , 2021, 17, 4738-4750.	1.2	9
563	Recent progress of biomimetic motionsâ€from microscopic micro/nanomotors to macroscopic actuators and soft robotics. <i>RSC Advances</i> , 2021, 11, 27406-27419.	1.7	9
564	Cell Motility and Locomotion by Shape Control. <i>Lecture Notes in Mathematics</i> , 2020, , 1-41.	0.1	3
565	Grayscale and Halftone Gel Lithography as Promising Techniques for Swelling-Induced Deformation of Smart Polymer Hydrogel Films. <i>Lecture Notes in Electrical Engineering</i> , 2017, , 122-125.	0.3	1
566	Tough, Shape-Changing Materials: Crystallized Liquid Crystal Elastomers. <i>Macromolecules</i> , 2017, 50, 4267-4275.	2.2	74
567	Programmable and Reversible 3D-/4D-Shape-Morphing Hydrogels with Precisely Defined Ion Coordination. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 26476-26484.	4.0	41
569	CurveUps. <i>ACM Transactions on Graphics</i> , 2017, 36, 1-12.	4.9	71
570	Inverse Design Tool for Asymmetrical Self-Rising Surfaces with Color Texture. , 2020, , .		5
571	Inside-Out 3D Reversible Ion-Triggered Shape-Morphing Hydrogels. <i>Research</i> , 2019, 2019, 1-12.	2.8	16

#	ARTICLE	IF	CITATIONS
572	Mechanics of moving defects in growing sheets: 3-d, small deformation theory. <i>Materials Theory</i> , 2020, 4, .	2.2	3
573	Relative bending energy for weakly prestrained shells. <i>Rocky Mountain Journal of Mathematics</i> , 2020, 50, .	0.2	2
574	Light-Written Reversible 3D Fluorescence and Topography Dual-Pattern with Memory and Self-Healing Abilities. <i>Research</i> , 2019, 2019, 2389254.	2.8	12
575	Inside-Out 3D Reversible Ion-Triggered Shape-Morphing Hydrogels. <i>Research</i> , 2019, 2019, 6398296.	2.8	65
576	MicroMotility: State of the art, recent accomplishments and perspectives on the mathematical modeling of bio-motility at microscopic scales. <i>Mathematics in Engineering</i> , 2020, 2, 230-252.	0.5	3
577	4D Printing of Engineered Living Materials. <i>Advanced Functional Materials</i> , 2022, 32, 2106843.	7.8	38
578	Homeostatic growth of dynamic covalent polymer network toward ultrafast direct soft lithography. <i>Science Advances</i> , 2021, 7, eabi7360.	4.7	19
579	Humidity- and Temperature-Tunable Metalâ€Hydrogelâ€Metal Reflective Filters. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 50564-50572.	4.0	11
580	Differential diffusion driven far-from-equilibrium shape-shifting of hydrogels. <i>Nature Communications</i> , 2021, 12, 6155.	5.8	26
581	Solventâ€Castâ€Assisted Printing of Biomimetic Morphing Hydrogel Structures with Solvent Evaporationâ€Induced Swelling Mismatch. <i>Advanced Functional Materials</i> , 2022, 32, 2108548.	7.8	17
583	Focused ion beam based nano-kirigami/origami for three-dimensional micro/nanomanufacturing and photonic applications. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2019, 68, 248101.	0.2	2
585	Shaping by Internal Material Frustration: Shifting to Architectural Scale. <i>Advanced Science</i> , 2021, 8, e2102171.	5.6	4
586	Patterned Electrode Assisted Oneâ€Step Fabrication of Biomimetic Morphing Hydrogels with Sophisticated Anisotropic Structures. <i>Advanced Science</i> , 2021, 8, e2102353.	5.6	35
587	Textiles in soft robots: Current progress and future trends. <i>Biosensors and Bioelectronics</i> , 2022, 196, 113690.	5.3	50
588	Precisely Defining Local Gradients of Stimuliâ€Responsive Hydrogels for Complex 2Dâ€toâ€4D Shape Evolutions. <i>Small</i> , 2022, 18, e2104440.	5.2	12
589	Morphogenesis through elastic phase separation in a pneumatic surface. <i>Comptes Rendus - Mecanique</i> , 2020, 348, 649-657.	0.3	1
590	Supramolecular Hydrogel with Orthogonally Responsive R/G/B Fluorophores Enables Multiâ€Color Switchable Biomimetic Soft Skins. <i>Advanced Functional Materials</i> , 2022, 32, 2108830.	7.8	30
591	Harnessing the power of chemically active sheets in solution. <i>Nature Reviews Physics</i> , 2022, 4, 125-137.	11.9	13

#	ARTICLE	IF	CITATIONS
592	Solvent-responsive strong hydrogel with programmable deformation and reversible shape memory for load-carrying soft robot. <i>Materials Today Communications</i> , 2022, 30, 103067.	0.9	5
593	Modeling of Bilayer Hydrogel Springs for Microrobots with Adaptive Locomotion. , 2021, , .		2
594	Smart Film Actuators for Biomedical Applications. <i>Small</i> , 2022, 18, e2105116.	5.2	15
595	A Shift from Efficiency to Adaptability: Recent Progress in Biomimetic Interactive Soft Robotics in Wet Environments. <i>Advanced Science</i> , 2022, 9, e2104347.	5.6	29
596	Photodegradation actuated shape-changing hydrogels. <i>Journal of Polymer Science</i> , 2022, 60, 825-841.	2.0	3
597	Inverse Design of Inflatable Soft Membranes Through Machine Learning. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	26
598	A Class of Rigid-Flexible Coupling Crystalline Crosslinked Polymers as Vapomechanical Actuators. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	11
599	A Class of Rigid-Flexible Coupling Crystalline Crosslinked Polymers as Vapomechanical Actuators. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	3
600	Function transformation of polymeric films through morphing of surface shapes. <i>Chemical Engineering Journal</i> , 2022, 434, 134665.	6.6	6
601	Shape-Changing DNA-Linked Nanoparticle Films Dictated by Lateral and Vertical Patterns. <i>Advanced Materials</i> , 2022, 34, e2109091.	11.1	6
602	Shape morphing mechanical metamaterials through reversible plasticity. <i>Science Robotics</i> , 2022, 7, eabg2171.	9.9	67
603	Preparation of wearable strain sensor based on PVA/MWCNTs hydrogel composite. <i>Materials Today Communications</i> , 2022, 31, 103278.	0.9	5
604	Three-Dimensional Shape Transformation of Eu ³⁺ -Containing Polymer Films through Modulating Dynamic Eu ³⁺ -Iminodiacetate Coordination. <i>Chemistry of Materials</i> , 2022, 34, 2176-2186.	3.2	10
605	Design of untethered soft material micromachine for life-like locomotion. <i>Materials Today</i> , 2022, 53, 197-216.	8.3	38
606	Light-Driven Actuation in Synthetic Polymers: A Review from Fundamental Concepts to Applications. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	16
607	Construction of 3D shape-changing hydrogels via light-modulated internal stress fields. <i>Energy and Environmental Materials</i> , 0, , .	7.3	2
608	Acoustics-Actuated Microrobots. <i>Micromachines</i> , 2022, 13, 481.	1.4	23
609	Structuring Hydrogel Cross-Link Density Using Hierarchical Filament 3D Printing. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 15667-15677.	4.0	7

#	ARTICLE	IF	CITATIONS
610	Programming Soft Shape-Morphing Systems by Harnessing Strain Mismatch and Snap-Through Bistability: A Review. <i>Materials</i> , 2022, 15, 2397.	1.3	3
613	Tensional twist-folding of sheets into multilayered scrolled yarns. <i>Science Advances</i> , 2022, 8, eabi8818.	4.7	5
614	Chemical welding of polymer networks. <i>Materials Today Chemistry</i> , 2022, 24, 100803.	1.7	6
615	Programming polymorphable yet stiff truss metamaterials in response to temperature. <i>Applied Materials Today</i> , 2022, 27, 101432.	2.3	4
616	Friction regulation of laser textured PVA hydrogels against a titanium alloy. <i>Optics and Laser Technology</i> , 2022, 152, 108085.	2.2	2
617	Metric mechanics with nontrivial topology: Actuating irises, cylinders, and evertors. <i>Physical Review E</i> , 2021, 104, 065004.	0.8	6
618	Materials for Smart Soft Actuator Systems. <i>Chemical Reviews</i> , 2022, 122, 1349-1415.	23.0	131
620	3D-to-3D Microscale Shape-Morphing from Configurable Helices with Controlled Chirality. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 61723-61732.	4.0	2
621	Spontaneous and rapid electro-actuated snapping of constrained polyelectrolyte hydrogels. <i>Science Advances</i> , 2022, 8, eabm9608.	4.7	45
622	A Brief Overview of Bioinspired Robust Hydrogel Based Shape Morphing Functional Structure for Biomedical Soft Robotics. <i>Frontiers in Materials</i> , 2022, 9, .	1.2	4
623	Design of pre-stressed plate-strips to cover non-developable shells. <i>European Journal of Mechanics, A/Solids</i> , 2022, 95, 104609.	2.1	0
624	Programmable Morphing Hydrogels for Soft Actuators and Robots: From Structure Designs to Active Functions. <i>Accounts of Chemical Research</i> , 2022, 55, 1533-1545.	7.6	94
625	Digitally Programmable Manufacturing of Living Materials Grown from Biowaste. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 20062-20072.	4.0	4
626	Anisotropic Swelling in Fiber-reinforced Hydrogels: An Incremental Finite Element Method and Its Applications in Design of Bilayer Structures. <i>International Journal of Applied Mechanics</i> , 0, , .	1.3	0
627	The Evolution of Self-Wrinkles in a Single-Layer Gradient Polymer Film Based on Viscoelasticity. <i>Macromolecules</i> , 2022, 55, 3563-3572.	2.2	9
628	A brief review on mechanical designs for 4D printing. , 2022, 01, .		1
629	Light-Actuated Anisotropic Microactuators from CNT/Hydrogel Nanocomposites. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	23
630	Dorsoventral gradient hydrogel fiber actuators visualized by AIEgen-conjugated nanoparticles. <i>Nano Today</i> , 2022, 44, 101502.	6.2	9

#	ARTICLE	IF	CITATIONS
631	Formation of rolls from liquid crystal elastomer bistrrips. <i>Soft Matter</i> , 2022, 18, 4077-4089.	1.2	2
632	A geometrically exact model for thin magneto-elastic shells. <i>Journal of the Mechanics and Physics of Solids</i> , 2022, 166, 104916.	2.3	11
633	Fracture Toughness and Blocking Force of Temperature-Sensitive PolyNIPAAm and Alginate Hybrid Gels. <i>Gels</i> , 2022, 8, 324.	2.1	4
634	Computational Design of Self-Actuated Surfaces by Printing Plastic Ribbons on Stretched Fabric. <i>Computer Graphics Forum</i> , 2022, 41, 493-506.	1.8	6
635	Multistable shape programming of variable-stiffness electromagnetic devices. <i>Science Advances</i> , 2022, 8, .	4.7	17
636	pH-Responsive Hydrogel Bilayer With Reversible, Bidirectional Bending Behavior. <i>Frontiers in Materials</i> , 2022, 9, .	1.2	2
637	Ripples at edges of blooming lilies and torn plastic sheets. <i>Biophysical Journal</i> , 2022, 121, 2389-2397.	0.2	1
638	Dilation-Invariant Bending of Elastic Plates, and Broken Symmetry in Shells. <i>Journal of Elasticity</i> , 0, , .	0.9	3
639	Modeling and Control of Morphing Covers for the Adaptive Morphology of Humanoid Robots. <i>IEEE Transactions on Robotics</i> , 2022, 38, 3300-3313.	7.3	1
640	Solutal-buoyancy-driven intertwining and rotation of patterned elastic sheets. , 2022, 1, .		1
641	Geometry, analysis, and morphogenesis: Problems and prospects. <i>Bulletin of the American Mathematical Society</i> , 2022, 59, 331-369.	0.8	4
642	Tunable hyperbolic out-of-plane deformation of 3D-printed auxetic PLA shape memory arrays. <i>Smart Materials and Structures</i> , 2022, 31, 075025.	1.8	4
643	Mechanically cycling gelatin bilayers. <i>Smart Materials and Structures</i> , 2022, 31, 085005.	1.8	3
644	Stretch-Activated Reprogrammable Shape-Morphing Composite Elastomers. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	7
645	Mechanically Diverse Gels with Equal Solvent Content. <i>ACS Central Science</i> , 2022, 8, 845-852.	5.3	10
646	Interfacial metric mechanics: stitching patterns of shape change in active sheets. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2022, 478, .	1.0	4
647	Programmed shape-morphing into complex target shapes using architected dielectric elastomer actuators. <i>Science Advances</i> , 2022, 8, .	4.7	25
648	Structuring Nanofibers of SMEC Sheets: A New Approach to Control Self-Folded Shape by Uniaxial Stretching. <i>Macromolecular Materials and Engineering</i> , 2022, 307, .	1.7	1

#	ARTICLE	IF	CITATIONS
649	Dimension reduction through gamma convergence for general prestrained thin elastic sheets. <i>Calculus of Variations and Partial Differential Equations</i> , 2022, 61, .	0.9	3
650	Multicomponent chiral hydrogel fibers with block configurations based on the chiral liquid crystals of cellulose nanocrystals and M13 bacteriophages. <i>Polymer Chemistry</i> , 2022, 13, 5200-5211.	1.9	1
651	Geometrical frustration of phase-separated domains in <i>Coscinodiscus</i> diatom frustules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	6
652	Controlling the shape and topology of two-component colloidal membranes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	2
653	Semi-Crystalline Rubber as a Light-Responsive, Programmable, Resilient Robotic Material. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	4
654	The swelling and shrinking of spherical thermo-responsive hydrogels. <i>Journal of Fluid Mechanics</i> , 2022, 947, .	1.4	7
655	Phototunable, Reconfigurable, and Complex Shape Transformation of Fe ³⁺ -Containing Bilayer Polymer Materials. <i>Chemistry of Materials</i> , 2022, 34, 7481-7492.	3.2	4
656	Behavior of an FG temperature-responsive hydrogel bilayer: Analytical and numerical approaches. <i>Composite Structures</i> , 2022, 301, 116203.	3.1	3
657	Transient shape morphing of active gel plates: geometry and physics. <i>Soft Matter</i> , 2022, 18, 5867-5876.	1.2	3
658	Hydrogel-Based Flexible Electronics. <i>Advanced Materials</i> , 2023, 35, .	11.1	116
659	Recent progress in fabrications and applications of functional hydrogel films. <i>Journal of Polymer Science</i> , 2023, 61, 1026-1039.	2.0	6
660	Hybrid PET Track-Etched Membranes Grafted by Well-Defined Poly(2-(dimethylamino)ethyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T 5 14, 4026.	2.0	13
661	High-performance electrified hydrogel actuators based on wrinkled nanomembrane electrodes for untethered insect-scale soft aquabots. <i>Science Robotics</i> , 2022, 7, .	9.9	24
662	Curvature-driven instabilities in thin active shells. <i>Royal Society Open Science</i> , 2022, 9, .	1.1	1
663	Light-Responsive Polyblend Films with Reconfigurable Surface Micropatterns as Rewritable Information Storage Media. <i>Chinese Journal of Chemistry</i> , 0, , .	2.6	1
664	Shape-morphing into 3D curved surfaces with nacre-like composite architectures. <i>Science Advances</i> , 2022, 8, .	4.7	16
665	Simulation of printed-on-fabric assemblies. , 2022, , .		1
666	Multiple shapes from a single nematic elastomer sheet activated via patterned illumination. <i>Europhysics Letters</i> , 2022, 140, 36003.	0.7	2

#	ARTICLE	IF	CITATIONS
667	Powerful 2D Soft Morphing Actuator Propels Giant Manta Ray Robot. <i>Advanced Intelligent Systems</i> , 2022, 4, .	3.3	1
668	Advances and Challenges of Hydrogel Materials for Robotic and Sensing Applications. <i>Chemistry of Materials</i> , 2022, 34, 9307-9328.	3.2	20
669	Kirigami inspired shape programmable and reconfigurable multifunctional nanocomposites for 3D structures. <i>Materials and Design</i> , 2022, 224, 111335.	3.3	2
670	Characteristic analysis of patterned photovoltaic modules for building integration. <i>Energy Conversion and Management</i> , 2023, 276, 116524.	4.4	1
671	Shape morphing of plastic films. <i>Nature Communications</i> , 2022, 13, .	5.8	9
672	Dynamic morphological transformations in soft architected materials via buckling instability encoded heterogeneous magnetization. <i>Nature Communications</i> , 2022, 13, .	5.8	13
673	A New Class of Single-Material, Non-Reciprocal Microactuators. <i>Macromolecular Rapid Communications</i> , 2023, 44, .	2.0	1
674	Chemically Driven Multimodal Locomotion of Active, Flexible Sheets. <i>Langmuir</i> , 2023, 39, 780-789.	1.6	5
676	Application of 4D printing and AI to cardiovascular devices. <i>Journal of Drug Delivery Science and Technology</i> , 2023, 80, 104162.	1.4	6
677	Bioinspired shape shifting of liquid-infused ribbed sheets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2023, 120, .	3.3	3
679	Synergistic fluorescent hydrogel actuators with selective spatial shape/color-changing behaviors via interfacial supramolecular assembly. <i>SmartMat</i> , 0, , .	6.4	4
680	Flow-network-controlled shape transformation of a thin membrane through differential fluid storage and surface expansion. <i>Physical Review E</i> , 2023, 107, .	0.8	0
681	Soft Deployable Structures via Core-Shell Inflatables. <i>Physical Review Letters</i> , 2023, 130, .	2.9	2
682	New water-soluble photo-initiators for two-photon polymerization based on benzylidene cyclopentanones. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2023, 442, 114743.	2.0	0
704	Bioinspired strategies for biomimetic actuators from ultrafast to ultraslow. <i>Nano Research</i> , 2024, 17, 570-586.	5.8	0