High-Force Soft Printable Pneumatics for Soft Robotic A

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Citation Report

#	Article	IF	CITATIONS
1	A Prestressed Soft Gripper: Design, Modeling, Fabrication, and Tests for Food Handling. IEEE Robotics and Automation Letters, 2017, 2, 1909-1916.	5.1	205
2	Elastic Inflatable Actuators for Soft Robotic Applications. Advanced Materials, 2017, 29, 1604977.	21.0	300
3	Design and Analysis of Soft Grippers for Hand Rehabilitation. , 2017, , .		9
4	Click chemistry stereolithography for soft robots that self-heal. Journal of Materials Chemistry B, 2017, 5, 6249-6255.	5.8	126
5	Computational design and fabrication of soft pneumatic objects with desired deformations. ACM Transactions on Graphics, 2017, 36, 1-12.	7.2	52
6	Design and characterization of a novel fabric-based robotic arm for future wearable robot application. , 2017, , .		16
7	Fabrication and performance comparison of different soft pneumatic actuators for lunch box packaging. , 2017, , .		7
8	A kind of soft pneumatic actuator based on multi-material 3D print technology. , 2017, , .		9
9	Soft robotic glove for hand rehabilitation based on a novel fabrication method., 2017,,.		16
10	3D printing of a thin-wall soft and monolithic gripper using fused filament fabrication. , 2017, , .		25
11	A 3D printed monolithic soft gripper with adjustable stiffness. , 2017, , .		31
12	Propulsion-Based Soft Robotic Actuation. Robotics, 2017, 6, 34.	3.5	6
13	Comparison of different soft grippers for lunch box packaging. Robotics and Biomimetics, 2017, 4, 10.	1.7	27
14	3D printing for soft robotics – a review. Science and Technology of Advanced Materials, 2018, 19, 243-262.	6.1	284
15	A digital light processing 3D printer for fast and high-precision fabrication of soft pneumatic actuators. Sensors and Actuators A: Physical, 2018, 273, 285-292.	4.1	109
16	Topology Optimized Design, Fabrication, and Characterization of a Soft Cable-Driven Gripper. IEEE Robotics and Automation Letters, 2018, 3, 2463-2470.	5.1	96
17	Softer is Harder: What Differentiates Soft Robotics from Hard Robotics?. MRS Advances, 2018, 3, 1557-1568.	0.9	84
18	A Soft Robotic Gripper With Gecko-Inspired Adhesive. IEEE Robotics and Automation Letters, 2018, 3, 903-910.	5.1	246

#	Article	IF	Citations
19	Design, characterization and applications of a novel soft actuator driven by flexible shafts. Mechanism and Machine Theory, 2018, 122, 197-218.	4.5	44
20	Soft robotic devices for hand rehabilitation and assistance: a narrative review. Journal of NeuroEngineering and Rehabilitation, 2018, 15, 9.	4.6	209
21	3D printing of soft robotic systems. Nature Reviews Materials, 2018, 3, 84-100.	48.7	620
22	A Soft Bionic Gripper with Variable Effective Length. Journal of Bionic Engineering, 2018, 15, 220-235.	5.0	97
23	Size recognition and adaptive grasping using an integration of actuating and sensing soft pneumatic gripper. Robotics and Autonomous Systems, 2018, 104, 14-24.	5.1	46
24	Modeling and Experimental Evaluation of Bending Behavior of Soft Pneumatic Actuators Made of Discrete Actuation Chambers. Soft Robotics, 2018, 5, 24-35.	8.0	128
25	Soft-rigid interaction mechanism towards a lobster-inspired hybrid actuator. Journal of Micromechanics and Microengineering, 2018, 28, 014007.	2.6	27
26	A Novel Foldâ€Based Design Approach toward Printable Soft Robotics Using Flexible 3D Printing Materials. Advanced Materials Technologies, 2018, 3, 1700172.	5.8	56
27	Innovative Design of Embedded Pressure and Position Sensors for Soft Actuators. IEEE Robotics and Automation Letters, 2018, 3, 656-663.	5.1	52
28	Geometry and Material Optimization of a Soft Pneumatic Gripper for Handling Deformable Object. , 2018, , .		13
29	Directional Stiffness Control Through Geometric Patterning and Localized Heating of Field's Metal Lattice Embedded in Silicone. Actuators, 2018, 7, 80.	2.3	7
30	Design of a Multi-Stage Stiffness Enhancing Unit for a Soft Robotic Finger and its Robust Motion Control. , 2018, , .		3
31	Soft optoelectronic sensory foams with proprioception. Science Robotics, 2018, 3, .	17.6	129
32	Design and fabrication of soft gripper using 3D printer. IOP Conference Series: Materials Science and Engineering, 0, 402, 012026.	0.6	3
33	Soft Robots Manufacturing: A Review. Frontiers in Robotics and Al, 2018, 5, 84.	3.2	201
34	Contact Detection and Size Estimation Using a Modular Soft Gripper with Embedded Flex Sensors. , 2018, , .		5
35	Geometry-based Direct Simulation for Multi-Material Soft Robots. , 2018, , .		12
36	A 3D printed Two DoF Soft Robotic Finger With Variable Stiffness. , 2018, , .		8

#	Article	IF	CITATIONS
37	Additive Manufacture of Composite Soft Pneumatic Actuators. Soft Robotics, 2018, 5, 726-736.	8.0	41
38	Design of Multifunctional Soft Doming Actuator for Soft Machines. Advanced Materials Technologies, 2018, 3, 1800069.	5.8	14
39	Voids and tensile properties in extrusion-based additive manufacturing of moisture-cured silicone elastomer. Additive Manufacturing, 2018, 22, 606-617.	3.0	22
40	Soft Robotic Grippers. Advanced Materials, 2018, 30, e1707035.	21.0	1,097
41	Highly-sensitive and highly-correlative flexible motion sensors based on asymmetric piezotronic effect. Nano Energy, 2018, 51, 185-191.	16.0	29
42	Directly Printable Flexible Strain Sensors for Bending and Contact Feedback of Soft Actuators. Frontiers in Robotics and Al, 2018, 5, 2.	3.2	53
43	Bioinspired 3D Printable Soft Vacuum Actuators for Locomotion Robots, Grippers and Artificial Muscles. Soft Robotics, 2018, 5, 685-694.	8.0	121
44	Sleeved Bending Actuators for Soft Grippers: A Durable Solution for High Force-to-Weight Applications. Actuators, 2018, 7, 40.	2.3	53
45	Shipboard design and fabrication of custom 3D-printed soft robotic manipulators for the investigation of delicate deep-sea organisms. PLoS ONE, 2018, 13, e0200386.	2.5	58
46	Chamber dimension optimization of a bellow-type soft actuator for food material handling. , 2018, , .		21
47	Geometry-Based Customization of Bending Modalities for 3D-Printed Soft Pneumatic Actuators. IEEE Robotics and Automation Letters, 2018, 3, 3489-3496.	5.1	26
48	Design and Development of a Topology-Optimized Three-Dimensional Printed Soft Gripper. Soft Robotics, 2018, 5, 650-661.	8.0	45
49	Distributed design of passive particle jamming based soft grippers. , 2018, , .		22
50	Direct 3D printing of silicone elastomer soft robots and their performance comparison with molded counterparts. , $2018, , .$		68
51	Topology optimized design, fabrication and evaluation of a multimaterial soft gripper. , 2018, , .		19
52	Materials for 3D Printing Cardiovascular Devices. , 2018, , 33-59.		0
53	Moving toward Soft Robotics: A Decade Review of the Design of Hand Exoskeletons. Biomimetics, 2018, 3, 17.	3.3	112
54	A Reconfigurable Pneumatic Bending Actuator with Replaceable Inflation Modules. Soft Robotics, 2018, 5, 304-317.	8.0	39

#	Article	IF	CITATIONS
55	Precharged Pneumatic Soft Actuators and Their Applications to Untethered Soft Robots. Soft Robotics, 2018, 5, 567-575.	8.0	64
56	A Novel Soft Pneumatic Artificial Muscle with High-Contraction Ratio. Soft Robotics, 2018, 5, 554-566.	8.0	56
57	Reducing Out-of-Plane Deformation of Soft Robotic Actuators for Stable Grasping. , 2019, , .		15
58	Simplifying Soft Robots Through Adhesive-backed Fabrics. , 2019, , .		1
59	Structural Parameters Influence on a Soft Robotic Manipulator Finger Bend Angle Simulation. , 2019, , .		4
60	A Novel Dual-Drive Soft Pneumatic Actuator with the Improved Output Force. Lecture Notes in Computer Science, 2019, , 16-25.	1.3	1
61	Directly 3D-printed monolithic soft robotic gripper with liquid metal microchannels for tactile sensing. Flexible and Printed Electronics, 2019, 4, 035001.	2.7	19
62	Toward a Smart Compliant Robotic Gripper Equipped with 3Dâ€Designed Cellular Fingers. Advanced Intelligent Systems, 2019, 1, 1900019.	6.1	35
63	Design of soft multi-material pneumatic actuators based on principal strain field. Materials and Design, 2019, 182, 108000.	7.0	33
64	An Origami-Inspired Monolithic Soft Gripper Based on Geometric Design Method. , 2019, , .		10
65	Evaluation of 3D Printed Soft Robots in Radiation Environments and Comparison With Molded Counterparts. Frontiers in Robotics and Al, 2019, 6, 40.	3.2	27
66	Untethered Soft Actuators by Liquid–Vapor Phase Transition: Remote and Programmable Actuation. Advanced Intelligent Systems, 2019, 1, 1900109.	6.1	42
67	3D Printable Vacuum-Powered Soft Linear Actuators. , 2019, , .		11
68	Fully 3D Printed Monolithic Soft Gripper with High Conformal Grasping Capability. , 2019, , .		27
69	Design and Field Evaluation of a Robotic Apple Harvesting System with a 3D-Printed Soft-Robotic End-Effector. Transactions of the ASABE, 2019, 62, 405-414.	1,1	61
70	Recycling-Oriented Design in Soft Robotics. Actuators, 2019, 8, 62.	2.3	7
71	3D Printed Soft Pneumatic Actuators with Intent Sensing for Hand Rehabilitative Exoskeletons. , 2019, , .		8
72	Design and Characterization of a 3D Printed Soft Robotic Wrist Sleeve with 2 DoF for Stroke Rehabilitation. , 2019, , .		16

#	Article	IF	CITATIONS
73	3D Printed Ferrofluid Based Soft Actuators. , 2019, , .		5
74	Characterising 3D-printed Soft Fin Ray Robotic Fingers with Layer Jamming Capability for Delicate Grasping. , 2019, , .		27
75	3D Printable Linear Soft Vacuum Actuators: Their Modeling, Performance Quantification and Application in Soft Robotic Systems. IEEE/ASME Transactions on Mechatronics, 2019, 24, 2118-2129.	5.8	70
76	Soft Rehabilitation and Nursing-Care Robots: A Review and Future Outlook. Applied Sciences (Switzerland), 2019, 9, 3102.	2.5	23
77	A Novel Underactuated Soft Humanoid Hand For Hand Sign Language. , 2019, , .		7
78	Magnetic actuation bionic robotic gripper with bistable morphing structure. Composite Structures, 2019, 229, 111422.	5.8	83
79	A 3D-Printed Omni-Purpose Soft Gripper. IEEE Transactions on Robotics, 2019, 35, 1268-1275.	10.3	102
80	Development of Fast Prototyping Pneumatic Actuated Grippers. International Journal of Precision Engineering and Manufacturing, 2019, 20, 2183-2192.	2.2	5
81	Pre-Charged Pneumatic Soft Gripper With Closed-Loop Control. IEEE Robotics and Automation Letters, 2019, 4, 1402-1408.	5.1	48
83	Tubular Jamming: A Variable Stiffening Method Toward High-Force Applications with Soft Robotic Components. Soft Robotics, 2019, 6, 468-482.	8.0	19
84	Soft Pneumatic Sensing Chambers for Generic and Interactive Human–Machine Interfaces. Advanced Intelligent Systems, 2019, 1, 1900002.	6.1	43
85	Optimizing Control of Passive Gait Training Exoskeleton Driven by Pneumatic Muscles Using Switch-Mode Firefly Algorithm. Robotica, 2019, 37, 2087-2103.	1.9	13
86	Shape Programming Using Triangular and Rectangular Soft Robot Primitives. Micromachines, 2019, 10, 236.	2.9	2
87	FifoBots: Foldable Soft Robots for Flipping Locomotion. Soft Robotics, 2019, 6, 532-559.	8.0	12
88	A Fully Multi-Material Three-Dimensional Printed Soft Gripper with Variable Stiffness for Robust Grasping. Soft Robotics, 2019, 6, 507-519.	8.0	115
89	Multimaterial 3D Printed Soft Actuators Powered by Shape Memory Alloy Wires. Sensors and Actuators A: Physical, 2019, 290, 177-189.	4.1	56
90	Developments in 4D-printing: a review on current smart materials, technologies, and applications. International Journal of Smart and Nano Materials, 2019, 10, 205-224.	4.2	232
91	Robotic Glove with Soft-Elastic Composite Actuators for Assisting Activities of Daily Living. Soft Robotics, 2019, 6, 289-304.	8.0	94

#	Article	IF	CITATIONS
92	Fabrication and modeling of dielectric elastomer soft actuator with 3D printed thermoplastic frame. Sensors and Actuators A: Physical, 2019, 292, 112-120.	4.1	51
93	Fabrication and Dynamic Modeling of Bidirectional Bending Soft Actuator Integrated with Optical Waveguide Curvature Sensor. Soft Robotics, 2019, 6, 495-506.	8.0	73
94	Configuration Modeling of a Soft Robotic Element with Selectable Bending Axes. , 2019, , .		0
95	Dynamic Flex-and-Flip Manipulation of Deformable Linear Objects. , 2019, , .		16
96	Research on Driving Performance of Pneumatic Soft Finger. , 2019, , .		0
97	Design and Analysis of a Soft Bidirectional Bending Actuator for Human-Robot Interaction Applications. , 2019, , .		0
98	A Novel Sequential Activation Method for the Locomotion of Quadrupedal Soft Robots. , 2019, , .		1
99	A Novel Soft-Robotic Gripper with Vertically Plane Contact of the Object. , 2019, , .		4
101	Design Methodology for Soft Wearable Devices—The MOSAR Case. Applied Sciences (Switzerland), 2019, 9, 4727.	2.5	5
102	A Novel Varying Angle Fiber-Reinforced Elastomer as a Soft Pneumatic Bending Actuator. , 2019, , .		O
103	Thermoplastic electroactive gels for 3D-printable artificial muscles. Smart Materials and Structures, 2019, 28, 085001.	3.5	19
104	4D printing with robust thermoplastic polyurethane hydrogel-elastomer trilayers. Materials and Design, 2019, 163, 107544.	7.0	93
105	A soft gripper of fast speed and low energy consumption. Science China Technological Sciences, 2019, 62, 31-38.	4.0	77
106	Challenges and Status on Design and Computation for Emerging Additive Manufacturing Technologies. Journal of Computing and Information Science in Engineering, 2019, 19, .	2.7	50
107	High-Load Soft Grippers Based on Bionic Winding Effect. Soft Robotics, 2019, 6, 276-288.	8.0	39
108	Fastâ€Response, Stiffnessâ€Tunable Soft Actuator by Hybrid Multimaterial 3D Printing. Advanced Functional Materials, 2019, 29, 1806698.	14.9	292
109	Additive manufacturing of soft robots., 2019,, 335-359.		18
110	New structure of pneumatic networks actuators for soft robotics. Journal of Engineering, 2019, 2019, 273-277.	1.1	4

#	Article	IF	CITATIONS
111	Design and Testing of a Soft Rehabilitation Glove Integrating Finger and Wrist Function. Journal of Mechanisms and Robotics, $2019,11,$.	2.2	21
112	A Novel Fabric-Based Versatile and Stiffness-Tunable Soft Gripper Integrating Soft Pneumatic Fingers and Wrist. Soft Robotics, 2019, 6, 1-20.	8.0	95
114	Bioinspired Design of Vascular Artificial Muscle. Advanced Materials Technologies, 2019, 4, 1800244.	5.8	86
115	Soft Hybrid Wave Spring Actuators. Advanced Intelligent Systems, 2020, 2, 1900097.	6.1	8
116	Bioinspired Three-Dimensional-Printed Helical Soft Pneumatic Actuators and Their Characterization. Soft Robotics, 2020, 7, 267-282.	8.0	91
117	Mechanoreception for Soft Robots via Intuitive Body Cues. Soft Robotics, 2020, 7, 198-217.	8.0	27
118	A novel bending microactuator with integrated flexible electro-rheological microvalves using an alternating pressure source for multi-actuator systems. Microsystem Technologies, 2020, 26, 1507-1519.	2.0	5
119	Design and Control of Foam Hands for Dexterous Manipulation. International Journal of Humanoid Robotics, 2020, 17, 1950033.	1.1	12
120	Fluidic Fabric Muscle Sheets for Wearable and Soft Robotics. Soft Robotics, 2020, 7, 179-197.	8.0	95
121	Closed-loop 4D-printed soft robots. Materials and Design, 2020, 188, 108411.	7.0	127
122	Design and modeling of a high-load soft robotic gripper inspired by biological winding. Bioinspiration and Biomimetics, 2020, 15, 026006.	2.9	15
123	Design and performance characterization of a soft robot hand with fingertip haptic feedback for teleoperation. Advanced Robotics, 2020, 34, 1491-1505.	1.8	9
124	A review of soft wearable robots that provide active assistance: Trends, common actuation methods, fabrication, and applications. Wearable Technologies, 2020, 1 , .	3.1	73
125	Application of Novel Graphite Flex Sensors in Closed-Loop Angle Feedback on a Soft Robotic Glove for Stroke Rehabilitation. Journal of Prosthetics and Orthotics, 2020, 32, 272-285.	0.4	2
126	A review of 3D printing processes and materials for soft robotics. Rapid Prototyping Journal, 2020, 26, 1345-1361.	3.2	116
127	Visual–tactile object recognition of a soft gripper based on faster Region-based Convolutional Neural Network and machining learning algorithm. International Journal of Advanced Robotic Systems, 2020, 17, 172988142094872.	2.1	13
128	A3D Printed Modular Soft Gripper for Conformal Grasping. , 2020, , .		5
129	3D/4D-printed bending-type soft pneumatic actuators: fabrication, modelling, and control. Virtual and Physical Prototyping, 2020, 15, 373-402.	10.4	103

#	Article	IF	Citations
130	Design and implementation of variable inclined air pillow soft pneumatic actuator suitable for bioimpedance applications. Sensors and Actuators A: Physical, 2020, 314, 112272.	4.1	21
131	A bistable soft gripper with mechanically embedded sensing and actuation for fast grasping. , 2020, , .		23
132	Design and Optimization of a Dextrous Robotic Finger: Incorporating a Sliding, Rotating, and Soft-Bending Mechanism While Maximizing Dexterity and Minimizing Dimensions. IEEE Robotics and Automation Magazine, 2020, 27, 56-64.	2.0	10
133	Triboelectric nanogenerator sensors for soft robotics aiming at digital twin applications. Nature Communications, 2020, $11,5381$.	12.8	363
134	Design and closed loop control of a 3D printed soft actuator. , 2020, , .		9
135	Design and Automatic Fabrication of Novel Bio-Inspired Soft Smart Robotic Hands. IEEE Access, 2020, 8, 155912-155925.	4.2	14
136	Design Approach for Heavy-Duty Soft-Robotic-Gripper. Procedia CIRP, 2020, 91, 301-305.	1.9	8
137	Rapid 3D Printing of Electrohydraulic (HASEL) Tentacle Actuators. Advanced Functional Materials, 2020, 30, 2005244.	14.9	22
138	3D printed, modularized rigid-flexible integrated soft finger actuators for anthropomorphic hands. Sensors and Actuators A: Physical, 2020, 312, 112090.	4.1	37
139	Design and characterization of a hybrid soft gripper with active palm pose control. International Journal of Robotics Research, 2020, 39, 1668-1685.	8.5	50
140	3D printing and growth induced bending based on PET-RAFT polymerization. Polymer Chemistry, 2020, 11, 4084-4093.	3.9	32
141	3D printed conductive thermoplastic polyurethane/carbon nanotube composites for capacitive and piezoresistive sensing in soft pneumatic actuators. Additive Manufacturing, 2020, 34, 101281.	3.0	54
142	A Novel Soft Bending Actuator Using Combined Positive and Negative Pressures. Frontiers in Bioengineering and Biotechnology, 2020, 8, 472.	4.1	22
143	A lobster-inspired bending module for compliant robotic applications. Bioinspiration and Biomimetics, 2020, 15, 056009.	2.9	15
144	Design and Computational Modeling of Fabric Soft Pneumatic Actuators for Wearable Assistive Devices. Scientific Reports, 2020, 10, 9638.	3.3	68
145	Materials and manufacturing strategies for mechanically transformative electronics. Materials Today Advances, 2020, 7, 100089.	5.2	15
146	Design and Modeling of a High Force Soft Actuator for Assisted Elbow Flexion. IEEE Robotics and Automation Letters, 2020, 5, 3731-3736.	5.1	24
147	A soft pneumatic bistable reinforced actuator bioinspired by Venus Flytrap with enhanced grasping capability. Bioinspiration and Biomimetics, 2020, 15, 056017.	2.9	36

#	Article	IF	CITATIONS
148	Additive manufacturing of multi-material soft robot for on-demand drug delivery applications. Journal of Manufacturing Processes, 2020, 56, 1178-1184.	5.9	57
149	Performance Optimization of Polymer Fibre Actuators for Soft Robotics. Polymers, 2020, 12, 454.	4.5	8
150	Soft Robotics: A Review of Recent Developments of Pneumatic Soft Actuators. Actuators, 2020, 9, 3.	2.3	183
151	Topology optimization of fluidic pressure-loaded structures and compliant mechanisms using the Darcy method. Structural and Multidisciplinary Optimization, 2020, 61, 1637-1655.	3.5	25
152	High-force soft pneumatic actuators based on novel casting method for robotic applications. Sensors and Actuators A: Physical, 2020, 306, 111957.	4.1	50
153	A Review of 3D Printing Technologies for Soft Polymer Materials. Advanced Functional Materials, 2020, 30, 2000187.	14.9	379
154	A Fabrication Free, 3D Printed, Multi-Material, Self-Sensing Soft Actuator. IEEE Robotics and Automation Letters, 2020, 5, 4118-4125.	5.1	39
155	Computational and Experimental Design Exploration of 3Dâ€Printed Soft Pneumatic Actuators. Advanced Intelligent Systems, 2020, 2, 2000013.	6.1	8
156	Reliability analysis of a tendon-driven actuation for soft robots. International Journal of Robotics Research, 2021, 40, 494-511.	8.5	20
157	Soft, Wearable, and Pleated Pneumatic Interference Actuator Provides Knee Extension Torque for Sit-to-Stand. Soft Robotics, 2021, 8, 28-43.	8.0	21
158	3D Printing Materials for Soft Robotics. Advanced Materials, 2021, 33, e2003387.	21.0	173
159	Soft Humanoid Hands with Large Grasping Force Enabled by Flexible Hybrid Pneumatic Actuators. Soft Robotics, 2021, 8, 175-185.	8.0	45
160	Design, Modeling, and Control of a 3D Printed Monolithic Soft Robotic Finger With Embedded Pneumatic Sensing Chambers. IEEE/ASME Transactions on Mechatronics, 2021, 26, 876-887.	5.8	32
161	Fluid-driven artificial muscles: bio-design, manufacturing, sensing, control, and applications. Bio-Design and Manufacturing, 2021, 4, 123-145.	7.7	40
162	A Multimodal, Enveloping Soft Gripper: Shape Conformation, Bioinspired Adhesion, and Expansion-Driven Suction. IEEE Transactions on Robotics, 2021, 37, 350-362.	10.3	71
163	I-support soft arm for assistance tasks: a new manufacturing approach based on 3D printing and characterization. Progress in Additive Manufacturing, 2021, 6, 243-256.	4.8	9
164	Enhanced mechanical properties in cellular solids using axisymmetric configurations. Composite Structures, 2021, 255, 112972.	5.8	0
165	Additive manufacturing aimed to soft robots fabrication: A review. Extreme Mechanics Letters, 2021, 42, 101079.	4.1	81

#	Article	IF	CITATIONS
166	An ultrafast response and precisely controllable soft electromagnet actuator based on Ecoflex rubber film filled with neodymium-iron-boron. Journal of Micromechanics and Microengineering, 2021, 31, 025010.	2.6	4
167	An Electrohydraulic Control Device With Decoupling Effect for Three-Chamber Soft Actuators. IEEE/ASME Transactions on Mechatronics, 2022, 27, 1683-1691.	5.8	2
168	Development of Pneumatic Soft Robotic Hands using 3D Printer. Journal of the Robotics Society of Japan, 2021, 39, 298-301.	0.1	1
169	Sensorized Reconfigurable Soft Robotic Gripper System for Automated Food Handling. IEEE/ASME Transactions on Mechatronics, 2022, 27, 3232-3243.	5.8	26
170	<i>In silico</i> design of additively manufacturable composite synthetic vascular conduits and grafts with tuneable compliance. Biomaterials Science, 2021, 9, 4343-4355.	5.4	7
171	Design and Experiments of Pneumatic Soft Actuators. Robotica, 2021, 39, 1806-1815.	1.9	7
172	A Review of 3Dâ€Printable Soft Pneumatic Actuators and Sensors: Research Challenges and Opportunities. Advanced Intelligent Systems, 2021, 3, 2000223.	6.1	75
173	On topology optimization of designâ€dependent pressureâ€loaded threeâ€dimensional structures and compliant mechanisms. International Journal for Numerical Methods in Engineering, 2021, 122, 2205-2220.	2.8	16
174	Bioâ€Inspired Soft Grippers Based on Impactive Gripping. Advanced Science, 2021, 8, 2002017.	11,2	68
175	Simulation Investigation of a Soft Hydraulic Artificial Muscle. Journal of Physics: Conference Series, 2021, 1820, 012068.	0.4	0
176	Development and Grasp Stability Estimation of Sensorized Soft Robotic Hand. Frontiers in Robotics and Al, 2021, 8, 619390.	3.2	10
177	Soft Grippers for Automatic Crop Harvesting: A Review. Sensors, 2021, 21, 2689.	3.8	82
178	3D printed Soft Extension Actuator., 2021,,.		4
179	Cactus-inspired design principles for soft robotics based on 3D printed hydrogel-elastomer systems. Materials and Design, 2021, 202, 109515.	7.0	35
180	An untethered soft robotic gripper with high payload-to-weight ratio. Mechanism and Machine Theory, 2021, 158, 104226.	4.5	31
181	A Bioinspired Composite Finger With Self-Locking Joints. IEEE Robotics and Automation Letters, 2021, 6, 1391-1398.	5.1	13
182	Design and Analysis of Pneumatic Bending Actuator Used in Soft Robotics. Advances in Science and Technology, 0, , .	0.2	3
183	Shape Change Propagation Through Soft Curved Materials for Dynamically-Tuned Paddling Robots. , 2021, , .		5

#	Article	IF	CITATIONS
184	Toward Industrial Silicone 3D Printing of Soft Robots. , 2021, , .		6
185	Multilayer Extending Actuator for Soft Robotic Applications. , 2021, , .		1
186	A Dual-Mode Actuator for Soft Robotic Hand. IEEE Robotics and Automation Letters, 2021, 6, 1144-1151.	5.1	17
187	Grasping with kirigami shells. Science Robotics, 2021, 6, .	17.6	86
188	Intelligent Soft Surgical Robots for Nextâ€Generation Minimally Invasive Surgery. Advanced Intelligent Systems, 2021, 3, 2100011.	6.1	55
189	A Sensorized Soft Pneumatic Actuator Fabricated with Extrusion-Based Additive Manufacturing. Actuators, 2021, 10, 102.	2.3	29
190	3D Printing Firm Inflatables with Internal Tethers. , 2021, , .		3
191	A bio-inspired soft planar actuator capable of broadening its working area. Engineering Research Express, 2021, 3, 025029.	1.6	1
192	Attention Enhancement for Exoskeleton-Assisted Hand Rehabilitation Using Fingertip Haptic Stimulation. Frontiers in Robotics and Al, 2021, 8, 602091.	3.2	14
193	Artificial Intelligence of Things (AloT) Enabled Virtual Shop Applications Using Selfâ€Powered Sensor Enhanced Soft Robotic Manipulator. Advanced Science, 2021, 8, e2100230.	11.2	138
194	Review of Research and Development of Supernumerary Robotic Limbs. IEEE/CAA Journal of Automatica Sinica, 2021, 8, 929-952.	13.1	33
195	MorpheesPlug: A Toolkit for Prototyping Shape-Changing Interfaces. , 2021, , .		17
196	Bioinspired Soft Robotic Fingers with Sequential Motion Based on Tendon-Driven Mechanisms. Soft Robotics, 2022, 9, 531-541.	8.0	7
197	Fused Deposition Modelling for 3D Printing of Soft Anthropomorphic Actuators. International Journal of Simulation Modelling, 2021, 20, 303-314.	1.3	3
198	Soft Robotic Hands and Tactile Sensors for Underwater Robotics. Applied Mechanics, 2021, 2, 356-383.	1.5	25
199	Optimal Soft Composites for Underâ€Actuated Soft Robots. Advanced Materials Technologies, 2021, 6, 2100361.	5.8	10
200	Inflatable Particle-Jammed Robotic Gripper Based on Integration of Positive Pressure and Partial Filling. Soft Robotics, 2022, 9, 309-323.	8.0	19
201	A method to 3D print a programmable continuum actuator with single material using internal constraint. Sensors and Actuators A: Physical, 2021, 324, 112674.	4.1	6

#	Article	IF	CITATIONS
202	Soft-Tentacle Gripper for Pipe Crawling to Inspect Industrial Facilities Using UAVs. Sensors, 2021, 21, 4142.	3.8	10
203	4D printing: Fundamentals, materials, applications and challenges. Polymer, 2021, 228, 123926.	3.8	118
204	Origami-Structured Actuating Modules for Upper Limb Support. IEEE Robotics and Automation Letters, 2021, 6, 5239-5246.	5.1	11
205	Design and prototyping of a novel gripper using PVC gel soft actuators. Japanese Journal of Applied Physics, 2021, 60, 087001.	1.5	5
206	A review on self-healing polymers for soft robotics. Materials Today, 2021, 47, 187-205.	14.2	150
207	Effect of geometry on the mechanical response of additively manufactured polymer. Polymer Testing, 2021, 100, 107245.	4.8	13
208	Tool changing 3D printer for rapid prototyping of advanced soft robotic elements. Bioinspiration and Biomimetics, 2021, 16, 055010.	2.9	10
209	DESIGN AND PRODUCTION OF MULTI MATERIAL 3D PRINTER FOR SOFT ROBOTIC STRUCTURAL ELEMENTS. International Journal of 3d Printing Technologies and Digital Industry, 0, , .	0.6	0
210	Multi-material distribution planning for additive manufacturing of biomimetic structures. Rapid Prototyping Journal, 2021, ahead-of-print, .	3.2	0
211	Kinematics modeling and grasping experiment of pneumatic four-finger flexible robotic hand. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2021, 235, 7894-7906.	2.1	4
212	A herringbone soft pneu-net actuator for enhanced conformal gripping. Robotica, 2022, 40, 1345-1360.	1.9	10
213	4D printing soft robots guided by machine learning and finite element models. Sensors and Actuators A: Physical, 2021, 328, 112774.	4.1	55
214	Design of a Single-Material Complex Structure Anthropomorphic Robotic Hand. Micromachines, 2021, 12, 1124.	2.9	10
215	A Soft Robotic Gripper With an Active Palm and Reconfigurable Fingers for Fully Dexterous In-Hand Manipulation. IEEE Robotics and Automation Letters, 2021, 6, 7706-7713.	5.1	31
216	Design, Fabrication, and Validation of a New Family of 3D-Printable Structurally-Programmable Actuators for Soft Robotics. IEEE Robotics and Automation Letters, 2021, 6, 7941-7948.	5.1	3
217	Origami-Inspired Soft Actuators for Stimulus Perception and Crawling Robot Applications. IEEE Transactions on Robotics, 2022, 38, 748-764.	10.3	39
218	Development of an Elastic Inflatable Actuator for Active Seating Systems. Lecture Notes in Networks and Systems, 2021, , 35-42.	0.7	0
219	Multi-material 3D Printing of Thermoplastic Elastomers for Development of Soft Robotic Structures with Integrated Sensor Elements., 2021,, 67-81.		11

#	Article	IF	CITATIONS
220	3D printing technologies: techniques, materials, and post-processing. Current Opinion in Chemical Engineering, 2020, 28, 134-143.	7.8	154
221	An experimental study of bellows-type fluidic soft bending actuators under external water pressure. Smart Materials and Structures, 2020, 29, 087005.	3.5	8
222	Gripping Force Modeling of a Variable Inclined Air Pillow Soft Pneumatic Actuator., 2020,,.		4
223	Kinetics-Induced Morphing of Three-Dimensional-Printed Gel Structures Based on Geometric Asymmetry. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .	2.2	8
224	The Design, Kinematics and Torque Analysis of the Self-Bending Soft Contraction Actuator. Actuators, 2020, 9, 33.	2.3	8
225	A Review of Printable Flexible and Stretchable Tactile Sensors. Research, 2019, 2019, 3018568.	5.7	100
226	Design and Modeling of a Multi-joint Reinforced Soft Pneumatic Actuator. Lecture Notes in Computer Science, 2021, , 422-432.	1.3	0
227	Pneumatic actuation-based bidirectional modules with variable stiffness and closed-loop position control. , $2021, , .$		0
228	A Seamless Workflow for Design and Fabrication of Multimaterial Pneumatic Soft Actuators. , 2021, , .		3
229	Processing of Selfâ∈Healing Polymers for Soft Robotics. Advanced Materials, 2022, 34, e2104798.	21.0	80
230	Bio-inspired soft bistable actuator with dual actuations. Smart Materials and Structures, 2021, 30, 125001.	3.5	22
231	From Bioinspiration to Computer Generation: Developments in Autonomous Soft Robot Design. Advanced Intelligent Systems, 2022, 4, 2100086.	6.1	47
232	Artificial Intelligence Approach to the Trajectory Generation and Dynamics of a Soft Robotic Swallowing Simulator. Advances in Intelligent Systems and Computing, 2019, , 3-16.	0.6	2
233	Addressing sensor drift in a proprioceptive optical foam system. , 2019, , .		1
234	Investigating Collaborative Robot Gripper Configurations for Simple Fabric Pick and Place Tasks., 0,,.		5
235	Low Cost Soft Robotic Gloves for At-home Rehabilitation and Daily Living Activities. Journal of Automation, Mobile Robotics and Intelligent Systems, 0, , 14-26.	0.4	2
236	Force Control of a 3D Printed Soft Gripper with Built-In Pneumatic Touch Sensing Chambers. Soft Robotics, 2022, 9, 970-980.	8.0	20
237	Design of a Multimaterial 3D-Printed Soft Actuator with Bi-directional Variable Stiffness. Lecture Notes in Computer Science, 2021, , 238-248.	1.3	2

#	Article	IF	CITATIONS
238	Design and Preliminary Validation of Grasp Assistive Device for an Industrial Environment. Journal of Medical Devices, Transactions of the ASME, 2022, 16 , .	0.7	0
239	3D Printing Polymeric Materials for Robots with Embedded Systems. Technologies, 2021, 9, 82.	5.1	19
240	Multijointed Pneumatic Soft Hand with Flexible Thenar. Soft Robotics, 2022, 9, 745-753.	8.0	8
241	3D-printed omnidirectional soft pneumatic actuators: Design, modeling and characterization. Sensors and Actuators A: Physical, 2021, 332, 113199.	4.1	28
242	Long-term cycle-tests of an additively manufactured soft ring-gripper. Procedia CIRP, 2021, 104, 798-802.	1.9	1
243	An Enveloping Soft Gripper With High-Load Carrying Capacity: Design, Characterization and Application. IEEE Robotics and Automation Letters, 2022, 7, 373-380.	5.1	7
244	Review of Flexible Actuators Based on Intelligent Materials. Advances in Astronautics Science and Technology, 2021, 4, 157-171.	0.8	2
245	Printed Strain Sensors for Onâ€Skin Electronics. Small Structures, 2022, 3, 2100131.	12.0	29
246	Soft actuators for real-world applications. Nature Reviews Materials, 2022, 7, 235-249.	48.7	296
247	Review of soft fluidic actuators: classification and materials modeling analysis. Smart Materials and Structures, 2022, 31, 013001.	3.5	31
248	Bubble casting soft robotics. Nature, 2021, 599, 229-233.	27.8	113
249	Characterization of an electrothermal gripper fabricated via extrusion-based additive manufacturing. Sensors and Actuators A: Physical, 2022, 333, 113302.	4.1	5
250	Bending behavior of 3D printed mechanically robust tubular lattice metamaterials. Additive Manufacturing, 2022, 50, 102565.	3.0	13
251	Analytical Modeling and Control of Soft Fast Pneumatic Networks Actuators. , 2020, , .		5
252	Development of a Semi-Rigid Tendon Actuated Limb for Robotics Applications. , 2020, , .		0
253	A Caging Inspired Gripper using Flexible Fingers and a Movable Palm. , 2021, , .		8
254	A 3D Printed Modular Soft Gripper Integrated With Metamaterials for Conformal Grasping. Frontiers in Robotics and AI, 2021, 8, 799230.	3.2	22
255	Dimension investigation to pneumatic network bending soft actuators for soft robotic applications. Engineering Research Express, 2022, 4, 015001.	1.6	2

#	ARTICLE	IF	CITATIONS
256	Development of an elastomeric resin for digital light processing printing. Journal of Applied Polymer Science, 0, , 52123.	2.6	1
257	Freeform Fabrication of Pneumatic Soft Robots via Multiâ€Material Jointed Direct Ink Writing. Macromolecular Materials and Engineering, 2022, 307, .	3.6	6
258	Topology Optimization Design and Experiment of a Soft Pneumatic Bending Actuator for Grasping Applications. IEEE Robotics and Automation Letters, 2022, 7, 2086-2093.	5.1	15
259	A Bidirectional Soft Biomimetic Hand Driven by Water Hydraulic for Dexterous Underwater Grasping. IEEE Robotics and Automation Letters, 2022, 7, 2186-2193.	5.1	16
260	Nondestructive Dimension Sorting by Soft Robotic Grippers Integrated with Triboelectric Sensor. ACS Nano, 2022, 16, 3008-3016.	14.6	37
262	3D printed linear soft multi-mode actuators expanding robotic applications. Soft Matter, 2022, 18, 1911-1919.	2.7	1
263	Soft Pneumatic Actuator Inspired onÂFlexion-Extension Motion Trajectory ofÂtheÂHuman Fingers. Mechanisms and Machine Science, 2022, , 168-177.	0.5	1
264	Stiffness-Tunable Soft Gripper with Soft-Rigid Hybrid Actuation for Versatile Manipulations. Soft Robotics, 2022, 9, 1108-1119.	8.0	27
265	Material Design for Enhancing Properties of 3D Printed Polymer Composites for Target Applications. Technologies, 2022, 10, 45.	5.1	11
266	Analytical Approach to Deformation of a Soft Rotary Actuator with Double Curvature Shell Shape. The Journal of Korea Robotics Society, 2022, 17, 68-75.	0.4	1
267	3D Printing Soft Matters and Applications: A Review. International Journal of Molecular Sciences, 2022, 23, 3790.	4.1	13
268	Application of neural network fitting for modeling the pneumatic networks bending soft actuator behavior. Engineering Research Express, 2022, 4, 015032.	1.6	2
269	Height-Tunable Replica Molding Using Viscous Polymeric Resins. ACS Macro Letters, 2022, 11, 428-433.	4.8	0
270	Fabrication of Flexible Multi-Cavity Bio-Inspired Adhesive Unit Using Laminated Mold Pouring. Machines, 2022, 10, 184.	2.2	3
271	A 3D Printed Soft Robotic Gripper With a Variable Stiffness Enabled by a Novel Positive Pressure Layer Jamming Technology. IEEE Robotics and Automation Letters, 2022, 7, 5477-5482.	5.1	24
272	Detachable Soft Actuators with Tunable Stiffness Based on Wire Jamming. Applied Sciences (Switzerland), 2022, 12, 3582.	2.5	4
273	Soft pneumatic actuators adapted in multiple environments: A novel fuzzy cascade strategy for the dynamics control with hysteresis compensation. Mechatronics, 2022, 84, 102797.	3.3	10
274	Shape Optimization of Soft Pneumatic Bellows for High Energy Density. , 2021, , .		2

#	Article	IF	CITATIONS
275	High Compliance Pneumatic Actuators to Promote Finger Extension in Stroke Survivors., 2021, 2021, 4588-4591.		0
276	A Pneumatic Novel Combined Soft Robotic Gripper with High Load Capacity and Large Grasping Range. Actuators, 2022, 11, 3.	2.3	12
277	A Dataâ€Driven Review of Soft Robotics. Advanced Intelligent Systems, 2022, 4, .	6.1	28
278	A Dualâ€Origami Design that Enables the Quasisequential Deployment and Bending Motion of Soft Robots and Grippers. Advanced Intelligent Systems, 2022, 4, .	6.1	14
280	Proposal of Manufacturing Method for New Passive Elastic Joint and Prototype of Human Phantom. Journal of Robotics and Mechatronics, 2022, 34, 402-412.	1.0	0
285	R3VAMPs - Fully Recyclable, Reconfigurable, and Recoverable Vacuum Actuated Muscle-inspired Pneumatic structures. , 2022, , .		2
286	A Review on Vacuum-Powered Fluidic Actuators in Soft Robotics. , 0, , .		3
287	Design, Implementation, and Kinematics of a Twisting Robot Continuum Arm Inspired by Human Forearm Movements. Robotics, 2022, 11, 55.	3.5	1
288	Stretching the Boundary: Shell Finite Elements for Pneumatic Soft Actuators. , 2022, , .		4
289	A Wearable Soft Robotic Exoskeleton for Hip Flexion Rehabilitation. Frontiers in Robotics and AI, 2022, 9, 835237.	3.2	16
290	Bioinspired Structures for Soft Actuators. Advanced Materials Technologies, 2022, 7, .	5.8	20
291	Automated Synthesis of Bending Pneumatic Soft Actuators. , 2022, , .		3
292	Eccentric High-Force Soft Pneumatic Bending Actuator for Finger-Type Soft Grippers. Journal of Mechanisms and Robotics, 2022, 14, .	2.2	5
293	Deformation Modeling and Simulation of a Novel Bionic Software Robotics Gripping Terminal Driven by Negative Pressure Based on Classical Differential Algorithm. Computational Intelligence and Neuroscience, 2022, 2022, 1-15.	1.7	0
294	Toward the Development of Large-Scale Inflatable Robotic Arms Using Hot Air Welding. Soft Robotics, 2023, 10, 88-96.	8.0	6
295	Bioinspired Multimodal Multipose Hybrid Fingers for Wide-Range Force, Compliant, and Stable Grasping. Soft Robotics, 2023, 10, 30-39.	8.0	16
296	Soft Pneumatic Actuators: A Review of Design, Fabrication, Modeling, Sensing, Control and Applications. IEEE Access, 2022, 10, 59442-59485.	4.2	72
297	A review of 4D printing: Materials, structures, and designs towards the printing of biomedical wearable devices. Bioprinting, 2022, 27, e00217.	5.8	19

#	ARTICLE	IF	CITATIONS
298	Fabrication and Functionality Integration Technologies for Smallâ€6cale Soft Robots. Advanced Materials, 2022, 34, .	21.0	13
299	A Review of Multi-Material 3D Printing of Functional Materials via Vat Photopolymerization. Polymers, 2022, 14, 2449.	4.5	58
300	Flexible PBAT-Based Composite Filaments for Tunable FDM 3D Printing. ACS Applied Bio Materials, 2022, 5, 3219-3229.	4.6	7
301	3D Printing of Robotic Soft Grippers: Toward Smart Actuation and Sensing. Advanced Materials Technologies, 2022, 7, .	5.8	36
302	4D-printed pneumatic soft actuators modeling, fabrication, and control., 2022, , 103-140.		0
303	4D printing modeling via machine learning. , 2022, , 73-102.		2
304	Functionalized 4D-printed sensor systems. , 2022, , 335-371.		2
305	Hydraulically Actuated Soft Tubular Gripper. , 2022, , .		2
306	Progress, Challenges, and Prospects of Soft Robotics for Space Applications. Advanced Intelligent Systems, 2023, 5, .	6.1	31
307	A novel soft gripper with enhanced gripping adaptability based on spring-reinforced soft pneumatic actuators. Industrial Robot, 2022, ahead-of-print, .	2.1	0
308	A lightweight bending actuator based on shape memory alloy and application to gripper. Mechanics of Advanced Materials and Structures, 0 , , 1 - 11 .	2.6	1
309	Body-Powered and Portable Soft Hydraulic Actuators as Prosthetic Hands. Robotics, 2022, 11, 71.	3.5	2
310	Development of an Autonomous UAV Integrated with a Manipulator and a Soft Gripper., 2022,,.		0
311	A review on the nonlinear dynamics of hyperelastic structures. Nonlinear Dynamics, 2022, 110, 963-994.	5. 2	28
312	Pneumatic and tendon actuation coupled muti-mode actuators for soft robots with broad force and speed range. Science China Technological Sciences, 2022, 65, 2156-2169.	4.0	9
313	Optimizing Out-of-Plane Stiffness for Soft Grippers. IEEE Robotics and Automation Letters, 2022, 7, 10430-10437.	5.1	4
314	A high-load bioinspired soft gripper with force booster fingers. Mechanism and Machine Theory, 2022, 177, 105048.	4.5	9
315	Recent advances in biomimetic soft robotics: fabrication approaches, driven strategies and applications. Soft Matter, 2022, 18, 7699-7734.	2.7	25

#	Article	IF	CITATIONS
316	A brief study on additively manufactured soft pneumatic actuators. AIP Conference Proceedings, 2022, , .	0.4	0
317	3D printing of soft fluidic actuators with graded porosity. Soft Matter, 2022, 18, 7269-7279.	2.7	2
318	Design and Characterization of a 3D printed Wave Spring for use in a Flexible Robotic Arm., 2022,,.		3
319	Compact Multilayer Extension Actuators for Reconfigurable Soft Robots. Soft Robotics, 2023, 10, 301-313.	8.0	5
320	Closed-loop Position Control of a Pediatric Soft Robotic Wearable Device for Upper Extremity Assistance. , 2022, , .		5
321	On high stiffness of soft robots for compatibility of deformation and function. Advanced Robotics, 2022, 36, 995-1010.	1.8	3
322	Optimal design and experimental validation of 3D printed soft pneumatic actuators. Smart Materials and Structures, 2022, 31, 115010.	3.5	3
323	Additive Manufacturing Techniques in Fabrication of Soft Robotic Sensors and Actuators: A Review. Lecture Notes in Mechanical Engineering, 2023, , 719-730.	0.4	0
324	Soft Underwater Swimming Robots Based on Artificial Muscle. Advanced Materials Technologies, 2023, 8, .	5.8	12
325	4D Multiscale Origami Soft Robots: A Review. Polymers, 2022, 14, 4235.	4.5	10
326	A facile fabricating method for smart soft robotic hand. Polymer Engineering and Science, 2023, 63, 118-125.	3.1	3
327	A compliant robotic grip structure based on shape memory polymer composite. Composites Communications, 2022, 36, 101383.	6.3	19
328	Additive Manufacturing of Soft Robots. , 2023, , 101-112.		0
329	A Magnetically and Thermally Controlled Liquid Metal Variable Stiffness Material. Advanced Engineering Materials, 2023, 25, .	3.5	8
330	A variable-stiffness and healable pneumatic actuator. Materials Horizons, 2023, 10, 908-917.	12.2	2
331	A bioinspired multi-knuckle dexterous pneumatic soft finger. Sensors and Actuators A: Physical, 2023, 350, 114105.	4.1	6
332	A Worm-like Crawling Soft Robot with Pneumatic Actuators Based on Selective Laser Sintering of TPU Powder. Biomimetics, 2022, 7, 205.	3.3	6
333	Review on Research Progress of Hydraulic Powered Soft Actuators. Energies, 2022, 15, 9048.	3.1	0

#	Article	IF	CITATIONS
334	Aspects Regarding the Modelling and Design of 3D-printed Bending Soft Pneumatic Actuators. IOP Conference Series: Materials Science and Engineering, 2022, 1268, 012012.	0.6	0
335	Finger-palm synergistic soft gripper for dynamic capture via energy harvesting and dissipation. Nature Communications, 2022, 13, .	12.8	7
336	Soft Pneumatic Actuators with Controllable Stiffness by Bioâ€Inspired Lattice Chambers and Fused Deposition Modeling 3D Printing. Advanced Engineering Materials, 2023, 25, .	3.5	11
337	Predicting the Bending of 3D Printed Hyperelastic Polymer Components. Polymers, 2023, 15, 368.	4.5	0
338	Current Designs of Robotic Arm Grippers: A Comprehensive Systematic Review. Robotics, 2023, 12, 5.	3.5	17
339	Large Scale Stiffness Variable Elastomer Made By Liquid Metal. , 2022, , .		0
340	Synthesis of Novel Shape Memory Thermoplastic Polyurethanes (SMTPUs) from Bio-Based Materials for Application in 3D/4D Printing Filaments. Materials, 2023, 16, 1072.	2.9	6
341	Earthwormâ€Inspired Multiâ€Material, Adaptive Strainâ€Limiting, Hybrid Actuators for Soft Robots. Advanced Intelligent Systems, 2023, 5, .	6.1	8
342	Fabrication of Multi-Material Pneumatic Actuators and Microactuators Using Stereolithography. Micromachines, 2023, 14, 244.	2.9	8
343	Artificial Neural Network-Based Activities Classification, Gait Phase Estimation, and Prediction. Annals of Biomedical Engineering, 2023, 51, 1471-1484.	2.5	3
344	A 0.5-meter-scale, high-load, soft-enclosed gripper capable of grasping the human body. Science China Technological Sciences, 2023, 66, 501-511.	4.0	1
345	Design optimization of a medical robotic manipulator for testing COVID-19 virus using finite element analysis., 2023,, 163-186.		0
346	SoRoForge: End-to-End Soft Actuator Design. IEEE Transactions on Automation Science and Engineering, 2023, 20, 1475-1486.	5.2	3
347	A bioinspired modular soft robotic arm. Engineering Research Express, 2023, 5, 015021.	1.6	2
348	High‧peed and Lowâ€Energy Actuation for Pneumatic Soft Robots with Internal Exhaust Air Recirculation. Advanced Intelligent Systems, 2023, 5, .	6.1	4
349	A Modular Soft Gripper with Combined Pneu-Net Actuators. Actuators, 2023, 12, 172.	2.3	4
350	A dual-mode and enclosing soft robotic gripper with stiffness-tunable and high-load capacity. Sensors and Actuators A: Physical, 2023, 354, 114294.	4.1	6
351	A review on food-grade-polymer-based O/W emulsion gels: Stabilization mechanism and 3D printing application. Food Hydrocolloids, 2023, 139, 108588.	10.7	18

#	Article	IF	CITATIONS
352	A novel pneumatic gripper driven by combination of soft fingers and bellows actuator for flexible grasping. Sensors and Actuators A: Physical, 2023, 355, 114335.	4.1	4
353	Soft Actuators and Robots Enabled by Additive Manufacturing. Annual Review of Control, Robotics, and Autonomous Systems, 2023, 6, 31-63.	11.8	11
354	Design and Analysis of a Novel Soft Actuator with High Contraction Ratio Based on Nested Structure. , 2022, , .		0
355	Snakeskin-Inspired 3D Printable Soft Robot Composed of Multi-Modular Vacuum-Powered Actuators. Actuators, 2023, 12, 62.	2.3	1
356	Flexible soft Pneumatic Bionic Hand Based on Multi-Jointed Structure. Journal of Physics: Conference Series, 2023, 2437, 012110.	0.4	0
357	Recent Advances in Perceptive Intelligence for Soft Robotics. Advanced Intelligent Systems, 2023, 5, .	6.1	7
358	A High-torque Bidirectional Curl Pneumatic Artificial Muscle. , 2022, , .		0
359	Composite Soft Pneumatic Actuators Using 3D Printed Skins. IEEE Robotics and Automation Letters, 2023, 8, 2086-2093.	5.1	3
360	Kirigami-Inspired 3D Printable Soft Pneumatic Actuators with Multiple Deformation Modes for Soft Robotic Applications. Soft Robotics, 2023, 10, 737-748.	8.0	1
361	Harnessing the nonlinear properties of buckling inflatable tubes for complex robotic behaviors. Materials Today, 2023, 63, 59-88.	14.2	5
362	Soft robotic finger with variable effective length enabled by an antagonistic constraint mechanism. Smart Materials and Structures, 2023, 32, 055001.	3.5	3
363	Underwater Soft Gripper Hydraulic Drive Control System Based on Rigid-flexible Coupling Accumulator., 2022,,.		1
364	A Critical Review on Factors Affecting the User Adoption of Wearable and Soft Robotics. Sensors, 2023, 23, 3263.	3.8	2
365	Design and performance analysis of wavy non-rotating pneumatic soft actuator. Journal of Mechanisms and Robotics, 0, , 1-35.	2.2	0
366	A Palm-Shape Variable-Stiffness Gripper Based on 3D-Printed Fabric Jamming. IEEE Robotics and Automation Letters, 2023, 8, 3238-3245.	5.1	6
367	Reconfigurable Soft Pneumatic Actuators Using Extensible Fabric-Based Skins. Soft Robotics, 0, , .	8.0	1
368	Design of Bistable Soft Deployable Structures via a Kirigamiâ€Inspired Planar Fabrication Approach. Advanced Materials Technologies, 2023, 8, .	5.8	2
369	A review on soft robotic technologies. AIP Conference Proceedings, 2023, , .	0.4	0

#	Article	IF	CITATIONS
370	Endurance tests for a fabric_reinforced inflatable soft actuator. Frontiers in Materials, 0, 10, .	2.4	0
371	Tailoring the in-plane and out-of-plane stiffness of soft fingers by endoskeleton topology optimization for stable grasping. Science China Technological Sciences, 2023, 66, 3080-3089.	4.0	1
372	Desktop fabrication of monolithic soft robotic devices with embedded fluidic control circuits. Science Robotics, 2023, 8, .	17.6	10
373	Chemically Driven Oscillating Soft Pneumatic Actuation. Soft Robotics, 2023, 10, 1159-1170.	8.0	1
374	Design of a Bistable Artificial Venus Flytrap Actuated by Low Pressure with Larger Capture Range and Faster Responsiveness. Biomimetics, 2023, 8, 181.	3.3	2
375	DragonClaw: A low-cost pneumatic gripper with integrated magnetic sensing. , 2023, , .		0
376	A Vacuum-Powered Soft Mesh Gripper for Compliant and Effective Grasping., 2023,,.		3
377	A stiffness-tunable soft actuator inspired by helix for medical applications. International Journal of Computer Assisted Radiology and Surgery, 0, , .	2.8	0
378	3D printing of polymer composites to fabricate wearable sensors: A comprehensive review. Materials Science and Engineering Reports, 2023, 154, 100734.	31.8	22
379	Soft Manipulator for Soft Robotic Applications: a Review. Journal of Intelligent and Robotic Systems: Theory and Applications, 2023, 108, .	3.4	1
380	Rubberâ€Like Soft Lattice Structure for Antiâ€Ballooning in Fluidic Elastic Soft Robots. Advanced Engineering Materials, 0, , .	3.5	0
381	Design and characterisation of a multi-DOF soft pneumatic module. Robotica, 0, , 1-15.	1.9	O
382	A Flexible Multifunctional Sensor Based on Triboelectric Nanogenerator for Measuring Variable Stiffness of Soft Grippers and Recognizing Item Size. Advanced Materials Technologies, 2023, 8, .	5.8	1
384	Analysis of Rigid-Flexible Coupling Characteristics of Pneumatic Modular Soft Joints with Variable Stiffness. Machines, 2023, 11, 714.	2.2	0
385	Tunable Folding Assembly Strategy for Soft Pneumatic Actuators. Soft Robotics, 0, , .	8.0	1
386	Research on a Variable Pressure Driving Method for Soft Robots Based on the Electromagnetic Effect. Sensors, 2023, 23, 6341.	3.8	0
388	Compact water pump and its application to self-contained soft robot hand for vegetable factory. Advanced Robotics, 2023, 37, 970-986.	1.8	1
389	Integrated Design Fabrication and Control of a Bioinspired Multimaterial Soft Robotic Hand. Cyborg and Bionic Systems, 2023, 4, .	7.9	5

#	Article	IF	CITATIONS
390	Grasping Performance Analysis and Comparison of Multi-Chamber Ring-Shaped Soft Grippers. Biomimetics, 2023, 8, 337.	3.3	1
391	A Novel Soft Glove Utilizing Honeycomb Pneumatic Actuators (HPAs) for Assisting Activities of Daily Living. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2023, 31, 3223-3233.	4.9	2
392	Analysis of design parameters' effect on 3D printed soft pneumatic actuator generated curvature and tip force. International Journal of Intelligent Robotics and Applications, 2023, 7, 752-762.	2.8	1
393	3D-printed PEDOT:PSS for soft robotics. Nature Reviews Materials, 2023, 8, 604-622.	48.7	22
394	Soft pneumatic actuators with integrated resistive sensors enabledÂby multi-material 3D printing. International Journal of Advanced Manufacturing Technology, 2023, 128, 4207-4221.	3.0	2
395	Soft Robotic Finger with Energy-Coupled Quadrastability. Soft Robotics, 2024, 11, 140-156.	8.0	0
396	Revolutionizing self-powered robotic systems with triboelectric nanogenerators. Nano Energy, 2023, 115, 108729.	16.0	13
397	Analysis of Mechanical Characteristics of Stereolithography Soft-Picking Manipulator and Its Application in Grasping Fruits and Vegetables. Agronomy, 2023, 13, 2481.	3.0	0
398	Three/Four-Dimensional Printed PLA Nano/Microstructures: Crystallization Principles and Practical Applications. International Journal of Molecular Sciences, 2023, 24, 13691.	4.1	1
399	An Insect-Inspired Soft Robot Controlled by Soft Valves. Lecture Notes in Computer Science, 2023, , 428-441.	1.3	0
400	Innovative development of a soft robotic gripper: mathematical modeling and grasping capability analysis. Mechanics Based Design of Structures and Machines, 0 , $1-28$.	4.7	2
401	Design optimization of soft robotic fingers biologically inspired by the fin ray effect with intrinsic force sensing. Mechanism and Machine Theory, 2024, 191, 105472.	4. 5	1
402	A Novel Soft-Rigid Hybrid Actuator with Vertebrae. , 2023, , .		0
403	Thermomechanical Properties of Polyjet Voxel-Printed Parts and the Effect of Percolation. 3D Printing and Additive Manufacturing, 0, , .	2.9	0
404	Fully 3D-printed tortoise-like soft mobile robot with muti-scenario adaptability. Bioinspiration and Biomimetics, 2023, 18, 066011.	2.9	1
405	Programmable and Variableâ€Stiffness Robotic Skins for Pneumatic Actuation. Advanced Intelligent Systems, 2023, 5, .	6.1	0
406	Intelligent Soft Robotic Grippers for Agricultural and Food Product Handling: A Brief Review with a Focus on Design and Control. Advanced Intelligent Systems, 2023, 5, .	6.1	0
407	Soft pneumatic actuator optimal design based on isogeometric analysis. Manufacturing Letters, 2023, 35, 55-63.	2.2	0

#	Article	IF	CITATIONS
408	A study on mechanical behavior of 3D printed elastomers with various infills and densities. Manufacturing Letters, 2023, 35, 592-602.	2.2	0
409	Corrugated V-fold soft actuator with large deformation and high force density. Smart Materials and Structures, 2023, 32, 115030.	3.5	0
410	Bio-inspired soft pneumatic actuator based on a kresling-like pattern with a rigid skeleton. Journal of Advanced Research, 2023, , .	9.5	0
411	Silicone/ broadleaf wood fiber /MWCNTS composite stretchable strain sensor for smart object identification. Sensors and Actuators A: Physical, 2023, 364, 114846.	4.1	1
412	Soft Enveloping Gripper Driving Several Fingers by 3D Snap Through Buckling Mechanism., 2023,,.		0
413	Design and development of an integrated diagnostic pneumatic end effector using soft robotics and IOT, 2023, , .		0
414	Robust Generalized Proportional Integral Control for Trajectory Tracking of Soft Actuators in a Pediatric Wearable Assistive Device. , 2023, , .		1
415	New classification of industrial robotic gripping systems for sustainable production. Scientific Reports, 2024, 14, .	3.3	0
416	Development ofÂ3D Printing Soft Pneumatic Actuators forÂRehabilitation. IFMBE Proceedings, 2024, , 668-680.	0.3	0
417	A retrofit sensing strategy for soft fluidic robots. Nature Communications, 2024, 15, .	12.8	0
418	Diversityâ€Based Topology Optimization of Soft Robotic Grippers. Advanced Intelligent Systems, 2024, 6, .	6.1	0
419	Soft bioinspired pneumatic actuator for adaptive grasping based on direct ink writing method. Sensors and Actuators A: Physical, 2024, 367, 115041.	4.1	0
420	3D-printed digital pneumatic logic for the control of soft robotic actuators. Science Robotics, 2024, 9, .	17.6	0
421	Review: Application of 3D Printing Technology in Soft Robots. 3D Printing and Additive Manufacturing, 0, , .	2.9	0
422	Development of an earthworm-based soft robot for colon sampling. Frontiers in Robotics and Al, 0, 11 ,	3.2	0
423	An Empirical Model of Soft Bellows Actuator. , 2024, , .		0
424	Advanced pneumatic microgripper for versatile biomedical micromanipulation. Precision Engineering, 2024, 88, 223-234.	3.4	0
425	A 3D-Printed Scaffold for Repairing Bone Defects. Polymers, 2024, 16, 706.	4.5	0

#	ARTICLE	IF	CITATIONS
426	A novel rigid-soft gripper for safe and reliable object handling. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2024, 46, .	1.6	0
427	Origamiâ€Inspired Reconfigurable Soft Actuators for Soft Robotic Applications. Advanced Materials Technologies, 2024, 9, .	5.8	0