

Robert J Wood

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

231
papers

16,337
citations

54
h-index

124
g-index

251
ext. papers

20,531
ext. citations

10.1
avg, IF

7.28
L-index

#	Paper	IF	Citations
231	An integrated design and fabrication strategy for entirely soft, autonomous robots. <i>Nature</i> , 2016 , 536, 451-5	50.4	1073
230	Embedded 3D printing of strain sensors within highly stretchable elastomers. <i>Advanced Materials</i> , 2014 , 26, 6307-12	24	1051
229	Soft robotic glove for combined assistance and at-home rehabilitation. <i>Robotics and Autonomous Systems</i> , 2015 , 73, 135-143	3.5	792
228	Controlled flight of a biologically inspired, insect-scale robot. <i>Science</i> , 2013 , 340, 603-7	33.3	649
227	A Resilient, Untethered Soft Robot. <i>Soft Robotics</i> , 2014 , 1, 213-223	9.2	612
226	SOFT ROBOTICS. A 3D-printed, functionally graded soft robot powered by combustion. <i>Science</i> , 2015 , 349, 161-5	33.3	608
225	The First Takeoff of a Biologically Inspired At-Scale Robotic Insect. <i>IEEE Transactions on Robotics</i> , 2008 , 24, 341-347	6.5	605
224	Design and Fabrication of Soft Artificial Skin Using Embedded Microchannels and Liquid Conductors. <i>IEEE Sensors Journal</i> , 2012 , 12, 2711-2718	4	497
223	The grand challenges of. <i>Science Robotics</i> , 2018 , 3,	18.6	464
222	Untethered soft robotics. <i>Nature Electronics</i> , 2018 , 1, 102-112	28.4	448
221	Meshworm: A Peristaltic Soft Robot With Antagonistic Nickel Titanium Coil Actuators. <i>IEEE/ASME Transactions on Mechatronics</i> , 2013 , 18, 1485-1497	5.5	404
220	Soft Robotic Grippers for Biological Sampling on Deep Reefs. <i>Soft Robotics</i> , 2016 , 3, 23-33	9.2	399
219	Hyperelastic pressure sensing with a liquid-embedded elastomer. <i>Journal of Micromechanics and Microengineering</i> , 2010 , 20, 125029	2	344
218	Fluid-driven origami-inspired artificial muscles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 13132-13137	11.5	291
217	Soft Somatosensitive Actuators via Embedded 3D Printing. <i>Advanced Materials</i> , 2018 , 30, e1706383	24	248
216	Wearable soft sensing suit for human gait measurement. <i>International Journal of Robotics Research</i> , 2014 , 33, 1748-1764	5.7	239
215	A Soft Strain Sensor Based on Ionic and Metal Liquids. <i>IEEE Sensors Journal</i> , 2013 , 13, 3405-3414	4	224

214	An Origami-Inspired Approach to Worm Robots. <i>IEEE/ASME Transactions on Mechatronics</i> , 2013 , 18, 430-438	438	219
213	Masked Deposition of Gallium-Indium Alloys for Liquid-Embedded Elastomer Conductors. <i>Advanced Functional Materials</i> , 2013 , 23, 5292-5296	15.6	210
212	Batch Fabrication of Customizable Silicone-Textile Composite Capacitive Strain Sensors for Human Motion Tracking. <i>Advanced Materials Technologies</i> , 2017 , 2, 1700136	6.8	206
211	Controlled flight of a microrobot powered by soft artificial muscles. <i>Nature</i> , 2019 , 575, 324-329	50.4	199
210	Self-folding with shape memory composites. <i>Soft Matter</i> , 2013 , 9, 7688	3.6	196
209	BIOMECHANICS. Jumping on water: Surface tension-dominated jumping of water striders and robotic insects. <i>Science</i> , 2015 , 349, 517-21	33.3	188
208	Design and Characterization of a Soft Multi-Axis Force Sensor Using Embedded Microfluidic Channels. <i>IEEE Sensors Journal</i> , 2013 , 13, 4056-4064	4	182
207	Self-folding origami: shape memory composites activated by uniform heating. <i>Smart Materials and Structures</i> , 2014 , 23, 094006	3.4	180
206	Pneumatic Energy Sources for Autonomous and Wearable Soft Robotics. <i>Soft Robotics</i> , 2014 , 1, 263-274	9.2	160
205	Untethered flight of an insect-sized flapping-wing microscale aerial vehicle. <i>Nature</i> , 2019 , 570, 491-495	50.4	158
204	Driving high voltage piezoelectric actuators in microrobotic applications. <i>Sensors and Actuators A: Physical</i> , 2012 , 176, 78-89	3.9	151
203	Realizing the potential of dielectric elastomer artificial muscles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 2476-2481	11.5	146
202	Multilayer Dielectric Elastomers for Fast, Programmable Actuation without Prestretch. <i>Advanced Materials</i> , 2016 , 28, 8058-8063	24	141
201	Robotic Artificial Muscles: Current Progress and Future Perspectives. <i>IEEE Transactions on Robotics</i> , 2019 , 35, 761-781	6.5	110
200	A biorobotic adhesive disc for underwater hitchhiking inspired by the remora suckerfish. <i>Science Robotics</i> , 2017 , 2,	18.6	110
199	Ultra-sensitive and resilient compliant strain gauges for soft machines. <i>Nature</i> , 2020 , 587, 219-224	50.4	109
198	Tunable elastic stiffness with microconfined magnetorheological domains at low magnetic field. <i>Applied Physics Letters</i> , 2010 , 97, 164104	3.4	100
197	Soft curvature sensors for joint angle proprioception 2011 ,		94

196	Wearable tactile keypad with stretchable artificial skin 2011 ,		93
195	First controlled vertical flight of a biologically inspired microrobot. <i>Bioinspiration and Biomimetics</i> , 2011 , 6, 036009	2.6	90
194	Compact Dielectric Elastomer Linear Actuators. <i>Advanced Functional Materials</i> , 2018 , 28, 1804328	15.6	88
193	A biologically inspired, flapping-wing, hybrid aerial-aquatic microrobot. <i>Science Robotics</i> , 2017 , 2,	18.6	87
192	The principles of cascading power limits in small, fast biological and engineered systems. <i>Science</i> , 2018 , 360,	33.3	87
191	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015 , 20, 2214-2221	5.5	84
190	High speed locomotion for a quadrupedal microrobot. <i>International Journal of Robotics Research</i> , 2014 , 33, 1063-1082	5.7	83
189	Robot self-assembly by folding: A printed inchworm robot 2013 ,		83
188	Controlling free flight of a robotic fly using an onboard vision sensor inspired by insect ocelli. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20140281	4.1	81
187	Ultragentle manipulation of delicate structures using a soft robotic gripper. <i>Science Robotics</i> , 2019 , 4,	18.6	77
186	Towards printable robotics: Origami-inspired planar fabrication of three-dimensional mechanisms 2011 ,		76
185	A review of actuation and power electronics options for flapping-wing robotic insects 2008 ,		75
184	Adaptive control of a millimeter-scale flapping-wing robot. <i>Bioinspiration and Biomimetics</i> , 2014 , 9, 0250046	4.6	73
183	An untethered jumping soft robot 2014 ,		73
182	Soft wearable motion sensing suit for lower limb biomechanics measurements 2013 ,		67
181	A Highly Stretchable Capacitive-Based Strain Sensor Based on Metal Deposition and Laser Rastering. <i>Advanced Materials Technologies</i> , 2017 , 2, 1700081	6.8	66
180	Design, fabrication, and modeling of the split actuator microrobotic bee 2012 ,		59
179	Power and Control Autonomy for High-Speed Locomotion With an Insect-Scale Legged Robot. <i>IEEE Robotics and Automation Letters</i> , 2018 , 3, 987-993	4.2	58

178	Influence of surface traction on soft robot undulation. <i>International Journal of Robotics Research</i> , 2013 , 32, 1577-1584	5.7	55
177	Inverted and vertical climbing of a quadrupedal microrobot using electroadhesion. <i>Science Robotics</i> , 2018 , 3,	18.6	53
176	A high speed soft robot based on dielectric elastomer actuators 2017 ,		52
175	Addressable wireless actuation for multijoint folding robots and devices. <i>Science Robotics</i> , 2017 , 2,	18.6	51
174	A Modular Soft Robotic Wrist for Underwater Manipulation. <i>Soft Robotics</i> , 2018 , 5, 399-409	9.2	50
173	A Vacuum-driven Origami Magic-ball Soft Gripper 2019 ,		50
172	Active modular elastomer sleeve for soft wearable assistance robots 2012 ,		50
171	Applicability of Shape Memory Alloy Wire for an Active, Soft Orthotic. <i>Journal of Materials Engineering and Performance</i> , 2011 , 20, 658-662	1.6	49
170	Undulatory Swimming Performance and Body Stiffness Modulation in a Soft Robotic Fish-Inspired Physical Model. <i>Soft Robotics</i> , 2017 , 4, 202-210	9.2	48
169	The milliDelta: A high-bandwidth, high-precision, millimeter-scale Delta robot. <i>Science Robotics</i> , 2018 , 3,	18.6	48
168	Increasing the Dimensionality of Soft Microstructures through Injection-Induced Self-Folding. <i>Advanced Materials</i> , 2018 , 30, e1802739	24	48
167	Textile Technology for Soft Robotic and Autonomous Garments. <i>Advanced Functional Materials</i> , 2021 , 31, 2008278	15.6	48
166	Influence of cross-sectional geometry on the sensitivity and hysteresis of liquid-phase electronic pressure sensors. <i>Applied Physics Letters</i> , 2012 , 101, 191904	3.4	47
165	Biocompatible Soft Fluidic Strain and Force Sensors for Wearable Devices. <i>Advanced Functional Materials</i> , 2019 , 29, 1807058	15.6	45
164	Biologically-inspired locomotion of a 2g hexapod robot 2010 ,		44
163	Controllable water surface to underwater transition through electrowetting in a hybrid terrestrial-aquatic microrobot. <i>Nature Communications</i> , 2018 , 9, 2495	17.4	43
162	Milligram-scale high-voltage power electronics for piezoelectric microrobots 2009 ,		43
161	A Dexterous, Glove-Based Teleoperable Low-Power Soft Robotic Arm for Delicate Deep-Sea Biological Exploration. <i>Scientific Reports</i> , 2018 , 8, 14779	4.9	43

160	Biologically Inspired Optical-Flow Sensing for Altitude Control of Flapping-Wing Microrobots. <i>IEEE/ASME Transactions on Mechatronics</i> , 2013 , 18, 556-568	5.5	42
159	Myriapod-like ambulation of a segmented microrobot. <i>Autonomous Robots</i> , 2011 , 31, 103-114	3	42
158	Fabrication and analysis of dielectric-elastomer minimum-energy structures for highly-deformable soft robotic systems 2010 ,		41
157	A Wearable Soft Haptic Communicator Based on Dielectric Elastomer Actuators. <i>Soft Robotics</i> , 2020 , 7, 451-461	9.2	41
156	A Dexterous Soft Robotic Hand for Delicate In-Hand Manipulation. <i>IEEE Robotics and Automation Letters</i> , 2020 , 5, 5502-5509	4.2	39
155	Stretchable circuits and sensors for robotic origami 2011 ,		38
154	A Review of Propulsion, Power, and Control Architectures for Insect-Scale Flapping-Wing Vehicles. <i>Applied Mechanics Reviews</i> , 2018 , 70,	8.6	37
153	Elastic Element Integration for Improved Flapping-Wing Micro Air Vehicle Performance. <i>IEEE Transactions on Robotics</i> , 2013 , 29, 32-41	6.5	37
152	An Additive Millimeter-Scale Fabrication Method for Soft Biocompatible Actuators and Sensors. <i>Advanced Materials Technologies</i> , 2017 , 2, 1700135	6.8	36
151	Peristaltic locomotion with antagonistic actuators in soft robotics 2010 ,		36
150	Design and manufacturing rules for maximizing the performance of polycrystalline piezoelectric bending actuators. <i>Smart Materials and Structures</i> , 2015 , 24, 065023	3.4	35
149	Smart pneumatic artificial muscle actuator with embedded microfluidic sensing 2013 ,		34
148	Experimental and computational studies of the aerodynamic performance of a flapping and passively rotating insect wing. <i>Journal of Fluid Mechanics</i> , 2016 , 791, 1-33	3.7	34
147	Rotary-actuated folding polyhedrons for midwater investigation of delicate marine organisms. <i>Science Robotics</i> , 2018 , 3,	18.6	33
146	The flying monkey: A mesoscale robot that can run, fly, and grasp 2016 ,		32
145	Shipboard design and fabrication of custom 3D-printed soft robotic manipulators for the investigation of delicate deep-sea organisms. <i>PLoS ONE</i> , 2018 , 13, e0200386	3.7	32
144	Multi-segment soft robotic fingers enable robust precision grasping. <i>International Journal of Robotics Research</i> , 2020 , 39, 1647-1667	5.7	30
143	Energetics of flapping-wing robotic insects: towards autonomous hovering flight 2010 ,		30

142	Mechanical and electrical numerical analysis of soft liquid-embedded deformation sensors analysis. <i>Extreme Mechanics Letters</i> , 2014 , 1, 42-46	3.9	29
141	Origami-inspired miniature manipulator for teleoperated microsurgery. <i>Nature Machine Intelligence</i> , 2020 , 2, 437-446	22.5	29
140	Deep Machine Learning Techniques for the Detection and Classification of Sperm Whale Bioacoustics. <i>Scientific Reports</i> , 2019 , 9, 12588	4.9	28
139	Body torque modulation for a microrobotic fly 2009 ,		28
138	Multilayer laminated piezoelectric bending actuators: design and manufacturing for optimum power density and efficiency. <i>Smart Materials and Structures</i> , 2016 , 25, 055033	3.4	27
137	Perching with a robotic insect using adaptive tracking control and iterative learning control. <i>International Journal of Robotics Research</i> , 2016 , 35, 1185-1206	5.7	27
136	An analytic framework for developing inherently-manufacturable pop-up laminate devices. <i>Smart Materials and Structures</i> , 2014 , 23, 094013	3.4	27
135	HAMR3: An autonomous 1.7g ambulatory robot 2011 ,		27
134	An end-to-end approach to making self-folded 3D surface shapes by uniform heating 2014 ,		26
133	Self-folding shape memory laminates for automated fabrication 2013 ,		26
132	Self-folding and self-actuating robots: A pneumatic approach 2015 ,		25
131	Flexible, stretchable tactile arrays from MEMS barometers 2013 ,		25
130	Model driven design for flexure-based Microrobots 2015 ,		25
129	Open-loop roll, pitch and yaw torques for a robotic bee 2012 ,		25
128	Design of centimeter-scale inchworm robots with bidirectional claws 2011 ,		25
127	Lift Force Control of Flapping-Wing Microrobots Using Adaptive Feedforward Schemes. <i>IEEE/ASME Transactions on Mechatronics</i> , 2013 , 18, 155-168	5.5	24
126	Pitch-angle feedback control of a Biologically Inspired flapping-wing microrobot 2011 ,		24
125	Concomitant sensing and actuation for piezoelectric microrobots. <i>Smart Materials and Structures</i> , 2018 , 27, 065028	3.4	23

124	Pop-up assembly of a quadrupedal ambulatory MicroRobot 2013 ,		23
123	Stroke plane deviation for a microrobotic fly 2010 ,		23
122	A Modular Dielectric Elastomer Actuator to Drive Miniature Autonomous Underwater Vehicles 2018 ,		23
121	Self-assembling sensors for printable machines 2014 ,		22
120	Soft artificial skin with multi-modal sensing capability using embedded liquid conductors 2011 ,		22
119	Dynamics and flight control of a flapping-wing robotic insect in the presence of wind gusts. <i>Interface Focus</i> , 2017 , 7, 20160080	3.9	21
118	Adaptive control for takeoff, hovering, and landing of a robotic fly 2013 ,		21
117	Spiking neural network (SNN) control of a flapping insect-scale robot 2016 ,		21
116	Self-Assembling, Low-Cost, and Modular mm-Scale Force Sensor. <i>IEEE Sensors Journal</i> , 2016 , 16, 69-76	4	20
115	Ultrastrong and High-Stroke Wireless Soft Actuators through Liquid-Gas Phase Change. <i>Advanced Materials Technologies</i> , 2019 , 4, 1800381	6.8	20
114	Non-linear resonance modeling and system design improvements for underactuated flapping-wing vehicles 2016 ,		18
113	A wirelessly powered, biologically inspired ambulatory microrobot 2014 ,		18
112	A soft multi-axis force sensor 2012 ,		18
111	Passive undulatory gaits enhance walking in a myriapod millirobot 2011 ,		18
110	Model-Free Control of a Hovering Flapping-Wing Microrobot. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2015 , 77, 95-111	2.9	17
109	A Low Mass Power Electronics Unit to Drive Piezoelectric Actuators for Flying Microrobots. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 3180-3191	7.2	17
108	Biocompatible Pressure Sensing Skins for Minimally Invasive Surgical Instruments. <i>IEEE Sensors Journal</i> , 2016 , 16, 1294-1303	4	17
107	Ultra-Lightweight, High Power Density Lithium-Ion Batteries. <i>Batteries and Supercaps</i> , 2018 , 1, 131-134	5.6	17

106	Bio-inspired mechanisms for inclined locomotion in a legged insect-scale robot 2014 ,		17
105	A passive, origami-inspired, continuously variable transmission 2014 ,		17
104	Asymmetric flapping for a robotic fly using a hybrid power-control actuator 2009 ,		17
103	Gait studies for a quadrupedal microrobot reveal contrasting running templates in two frequency regimes. <i>Bioinspiration and Biomimetics</i> , 2017 , 12, 046005	2.6	16
102	Microsurgical Devices by Pop-Up Book MEMS 2013 ,		16
101	HAMR3: An autonomous 1.7g ambulatory robot		16
100	Development of the Polipo Pressure Sensing System for Dynamic Space-Suited Motion. <i>IEEE Sensors Journal</i> , 2015 , 15, 6229-6237	4	15
99	A fluidic demultiplexer for controlling large arrays of soft actuators. <i>Soft Matter</i> , 2020 , 16, 5871-5877	3.6	15
98	A monolithic approach to fabricating low-cost, millimeter-scale multi-axis force sensors for minimally-invasive surgery 2014 ,		15
97	Pitch and yaw control of a robotic insect using an onboard magnetometer 2014 ,		15
96	Powertrain selection for a biologically-inspired miniature quadruped robot 2014 ,		15
95	Echinoderm-Inspired Tube Feet for Robust Robot Locomotion and Adhesion. <i>IEEE Robotics and Automation Letters</i> , 2018 , 3, 2222-2228	4.2	14
94	Comparative analysis of fabrication methods for achieving rounded microchannels in PDMS. <i>Journal of Micromechanics and Microengineering</i> , 2016 , 26, 115013	2	14
93	Design and fabrication of an insect-scale flying robot for control autonomy 2015 ,		14
92	Mechanically Programmable Dip Molding of High Aspect Ratio Soft Actuator Arrays. <i>Advanced Functional Materials</i> , 2020 , 30, 1908919	15.6	14
91	Design, Fabrication, and Characterization of an Untethered Amphibious Sea Urchin-Inspired Robot. <i>IEEE Robotics and Automation Letters</i> , 2019 , 4, 3348-3354	4.2	13
90	Printing angle sensors for foldable robots 2015 ,		13
89	Hybrid aerial and aquatic locomotion in an at-scale robotic insect 2015 ,		13

88	Fly on the wall 2014 ,		13
87	Shear-mode contact splitting for a microtextured elastomer film. <i>Advanced Materials</i> , 2010 , 22, 3700-3	24	13
86	Feedback-controlled self-folding of autonomous robot collectives 2016 ,		13
85	Soft Curvature and Contact Force Sensors for Deep-Sea Grasping via Soft Optical Waveguides 2018 ,		13
84	An End-to-End Approach to Self-Folding Origami Structures. <i>IEEE Transactions on Robotics</i> , 2018 , 34, 1409-1424	6.5	13
83	Hybrid carbon fiber-textile compliant force sensors for high-load sensing in soft exosuits 2017 ,		12
82	Lift force control of a flapping-wing microrobot 2011 ,		12
81	Tunable Multi-Modal Locomotion in Soft Dielectric Elastomer Robots. <i>IEEE Robotics and Automation Letters</i> , 2020 , 5, 3868-3875	4.2	11
80	Stabilizing air dampers for hovering aerial robotics: design, insect-scale flight tests, and scaling. <i>Autonomous Robots</i> , 2017 , 41, 1555-1573	3	10
79	Smart Thermally Actuating Textiles. <i>Advanced Materials Technologies</i> , 2020 , 5, 2000383	6.8	10
78	Meso scale flextensional piezoelectric actuators. <i>Smart Materials and Structures</i> , 2018 , 27, 015008	3.4	10
77	Single-loop control and trajectory following of a flapping-wing microrobot 2014 ,		10
76	Influence of wing morphological and inertial parameters on flapping flight performance 2016 ,		10
75	Microrobotic laser steering for minimally invasive surgery. <i>Science Robotics</i> , 2021 , 6,	18.6	10
74	Tension Pistons: Amplifying Piston Force Using Fluid-Induced Tension in Flexible Materials. <i>Advanced Functional Materials</i> , 2019 , 29, 1901419	15.6	9
73	An insect-inspired collapsible wing hinge dampens collision-induced body rotation rates in a microrobot. <i>Journal of the Royal Society Interface</i> , 2019 , 16, 20180618	4.1	9
72	Feedback control of a legged microrobot with on-board sensing 2015 ,		9
71	Design and control of a parallel linkage wrist for robotic microsurgery 2015 ,		9

70	Design and analysis of an integrated driver for piezoelectric actuators 2013 ,		9
69	Towards a multi-segment ambulatory microrobot 2010 ,		9
68	An ultra-high precision, high bandwidth torque sensor for microrobotics applications 2011 ,		9
67	Piezoelectric Grippers for Mobile Micromanipulation. <i>IEEE Robotics and Automation Letters</i> , 2020 , 5, 4407-4414	4.4	9
66	A putative chordate luciferase from a cosmopolitan tunicate indicates convergent bioluminescence evolution across phyla. <i>Scientific Reports</i> , 2020 , 10, 17724	4.9	9
65	A Fully Integrated Battery-Powered System-on-Chip in 40-nm CMOS for Closed-Loop Control of Insect-Scale Pico-Aerial Vehicle. <i>IEEE Journal of Solid-State Circuits</i> , 2017 , 52, 2374-2387	5.5	8
64	Effective locomotion at multiple stride frequencies using proprioceptive feedback on a legged microrobot. <i>Bioinspiration and Biomimetics</i> , 2019 , 14, 056001	2.6	8
63	Yaw Torque Authority for a Flapping-Wing Micro-Aerial Vehicle 2019 ,		8
62	Printing Strain Gauges on Surgical Instruments for Force Measurement1. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2014 , 8,	1.3	8
61	Contact-Implicit Optimization of Locomotion Trajectories for a Quadrupedal Microrobot		8
60	A physical model of mantis shrimp for exploring the dynamics of ultrafast systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	8
59	Contact-implicit trajectory optimization using variational integrators. <i>International Journal of Robotics Research</i> , 2019 , 38, 1463-1476	5.7	7
58	Soft Robotics: Soft Somatosensitive Actuators via Embedded 3D Printing (Adv. Mater. 15/2018). <i>Advanced Materials</i> , 2018 , 30, 1870106	24	7
57	High speed trajectory control using an experimental maneuverability model for an insect-scale legged robot 2017 ,		7
56	Turning gaits and optimal undulatory gaits for a modular centipede-inspired millirobot 2012 ,		7
55	Robustness of centipede-inspired millirobot locomotion to leg failures 2013 ,		7
54	Soft curvature sensors for joint angle proprioception		7
53	Inverted and Inclined Climbing Using Capillary Adhesion in a Quadrupedal Insect-Scale Robot. <i>IEEE Robotics and Automation Letters</i> , 2020 , 5, 4820-4827	4.2	6

52	A bioinspired approach to torque control in an insect-sized flapping-wing robot 2014 ,		6
51	A geometrically-amplified in-plane piezoelectric actuator for mesoscale robotic systems 2017 ,		6
50	An ultra-high precision, high bandwidth torque sensor for microrobotics applications 2011 ,		6
49	Scaling Up Soft Robotics: A Meter-Scale, Modular, and Reconfigurable Soft Robotic System. <i>Soft Robotics</i> , 2021 ,	9.2	6
48	Model-free control of a flapping-wing flying microrobot 2013 ,		5
47	A high-force, high-stroke distal robotic add-on for endoscopy 2017 ,		5
46	Rotating the heading angle of underactuated flapping-wing flyers by wriggle-steering 2015 ,		5
45	Soft Sensing Shirt for Shoulder Kinematics Estimation 2020 ,		5
44	Biologically inspired electrostatic artificial muscles for insect-sized robots. <i>International Journal of Robotics Research</i> , 2021 , 40, 895-922	5.7	5
43	Soft Sensors for Curvature Estimation under Water in a Soft Robotic Fish 2019 ,		4
42	Ultra-gentle soft robotic fingers induce minimal transcriptomic response in a fragile marine animal. <i>Current Biology</i> , 2020 , 30, R157-R158	6.3	4
41	A blade element approach to modeling aerodynamic flight of an insect-scale robot 2017 ,		4
40	A high speed motion capture method and performance metrics for studying gaits on an insect-scale legged robot 2017 ,		4
39	Mechanically programmed self-folding at the millimeter scale 2014 ,		4
38	Design and feedback control of a biologically-inspired miniature quadruped 2013 ,		4
37	Injection Molding of Soft Robots. <i>Advanced Materials Technologies</i> , 2100605	6.8	4
36	A Compact Laser-Steering End-Effector for Transoral Robotic Surgery 2019 ,		4
35	Printing Strain Gauges on Intuitive Surgical da Vinci Robot End Effectors 2018 ,		4

34	Advances and future outlooks in soft robotics for minimally invasive marine biology.. <i>Science Robotics</i> , 2022 , 7, eabm6807	18.6	4
33	A Modular Folded Laminate Robot Capable of Multi Modal Locomotion. <i>Springer Proceedings in Advanced Robotics</i> , 2017 , 59-70	0.6	3
32	Fabrication of stretchable composites with anisotropic electrical conductivity for compliant pressure transducers 2016 ,		3
31	Algorithms for Rapid Development of Inherently-Manufacturable Laminate Devices 2014 ,		3
30	Wrist angle measurements using soft sensors 2014 ,		3
29	A jumping robotic insect based on a torque reversal catapult mechanism 2013 ,		3
28	SoMo: Fast and Accurate Simulations of Continuum Robots in Complex Environments 2021 ,		3
27	HAMR3: An autonomous 1.7g ambulatory robot		3
26	A Soft, Modular, and Bi-stable Dome Actuator for Programmable Multi-Modal Locomotion 2020 ,		3
25	An Active Palm Enhances Dexterity of Soft Robotic In-Hand Manipulation 2021 ,		3
24	A dynamic electrically driven soft valve for control of soft hydraulic actuators. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	3
23	Nitinol living hinges for millimeter-sized robots and medical devices 2019 ,		2
22	Wind disturbance rejection for an insect-scale flapping-wing robot 2015 ,		2
21	A computational tool to improve flapping efficiency of robotic insects 2014 ,		2
20	Mechanics and Actuation for Flapping-Wing Robotic Insects 2010 ,		2
19	Design, fabrication and analysis of a body-caudal fin propulsion system for a microrobotic fish 2008 ,		2
18	Compliant Low Profile Multi-Axis Force Sensors 2018 ,		2
17	The structural origins of brittle star arm kinematics: An integrated tomographic, additive manufacturing, and parametric modeling-based approach. <i>Journal of Structural Biology</i> , 2020 , 211, 107481 [†]		1

16	Closure to Discussion of A Review of Propulsion, Power, and Control Architectures for Insect-Scale Flapping Wing Vehicles [Helbling, E. F., and Wood, R. J., 2018, ASME Appl. Mech. Rev., 70(1), p. 010801]. <i>Applied Mechanics Reviews</i> , 2018 , 70,	8.6	1
15	A bio-robotic remora disc with attachment and detachment capabilities for reversible underwater hitchhiking 2019 ,		1
14	Monolithic Fabrication of Millimeter-Scale Surgical Devices With Integrated Sensing1. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2014 , 8,	1.3	1
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