

Robert J Wood

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/1422266/robert-j-wood-publications-by-year.pdf>

Version: 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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	The Chain-Link Actuator: Exploiting the Bending Stiffness of McKibben Artificial Muscles to Achieve Larger Contraction Ratios. <i>IEEE Robotics and Automation Letters</i> , 2022 , 7, 542-548	4.2	1
230	Controlling Palm-Object Interactions Via Friction for Enhanced In-Hand Manipulation. <i>IEEE Robotics and Automation Letters</i> , 2022 , 7, 2258-2265	4.2	1
229	Towards Understanding the Communication in Sperm Whales. <i>IScience</i> , 2022 , 104393	6.1	1
228	Advances and future outlooks in soft robotics for minimally invasive marine biology.. <i>Science Robotics</i> , 2022 , 7, eabm6807	18.6	4
227	SoMo: Fast and Accurate Simulations of Continuum Robots in Complex Environments 2021 ,		3
226	The Role of Digit Arrangement in Soft Robotic In-Hand Manipulation 2021 ,		1
225	An Active Palm Enhances Dexterity of Soft Robotic In-Hand Manipulation 2021 ,		3
224	Scaling Up Soft Robotics: A Meter-Scale, Modular, and Reconfigurable Soft Robotic System. <i>Soft Robotics</i> , 2021 ,	9.2	6
223	Textile Technology for Soft Robotic and Autonomous Garments. <i>Advanced Functional Materials</i> , 2021 , 31, 2008278	15.6	48
222	Microrobotic laser steering for minimally invasive surgery. <i>Science Robotics</i> , 2021 , 6,	18.6	10
221	Biologically inspired electrostatic artificial muscles for insect-sized robots. <i>International Journal of Robotics Research</i> , 2021 , 40, 895-922	5.7	5
220	A Fabrication Strategy for Reconfigurable Millimeter-Scale Metamaterials. <i>Advanced Functional Materials</i> , 2021 , 31, 2103428	15.6	1
219	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
218	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
217	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
216	Multi-segment soft robotic fingers enable robust precision grasping. <i>International Journal of Robotics Research</i> , 2020 , 39, 1647-1667	5.7	30
215	Tunable Multi-Modal Locomotion in Soft Dielectric Elastomer Robots. <i>IEEE Robotics and Automation Letters</i> , 2020 , 5, 3868-3875	4.2	11

214	Smart Thermally Actuating Textiles. <i>Advanced Materials Technologies</i> , 2020 , 5, 2000383	6.8	10
213	A Dexterous Soft Robotic Hand for Delicate In-Hand Manipulation. <i>IEEE Robotics and Automation Letters</i> , 2020 , 5, 5502-5509	4.2	39
212	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	3.4	1
211	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
210	A fluidic demultiplexer for controlling large arrays of soft actuators. <i>Soft Matter</i> , 2020 , 16, 5871-5877	3.6	15
209	A Soft, Modular, and Bi-stable Dome Actuator for Programmable Multi-Modal Locomotion 2020 ,		3
208	Piezoelectric Grippers for Mobile Micromanipulation. <i>IEEE Robotics and Automation Letters</i> , 2020 , 5, 4407-4414	4.4	9
207	A Wearable Soft Haptic Communicator Based on Dielectric Elastomer Actuators. <i>Soft Robotics</i> , 2020 , 7, 451-461	9.2	41
206	Soft Sensing Shirt for Shoulder Kinematics Estimation 2020 ,		5
205	Ultra-sensitive and resilient compliant strain gauges for soft machines. <i>Nature</i> , 2020 , 587, 219-224	50.4	109
204	Robotic Textiles: Smart Thermally Actuating Textiles (Adv. Mater. Technol. 8/2020). <i>Advanced Materials Technologies</i> , 2020 , 5, 2070050	6.8	
203	Origami-inspired miniature manipulator for teleoperated microsurgery. <i>Nature Machine Intelligence</i> , 2020 , 2, 437-446	22.5	29
202	A putative chordate luciferase from a cosmopolitan tunicate indicates convergent bioluminescence evolution across phyla. <i>Scientific Reports</i> , 2020 , 10, 17724	4.9	9
201	Mechanically Programmable Dip Molding of High Aspect Ratio Soft Actuator Arrays. <i>Advanced Functional Materials</i> , 2020 , 30, 1908919	15.6	14
200	Ultragentle manipulation of delicate structures using a soft robotic gripper. <i>Science Robotics</i> , 2019 , 4,	18.6	77
199	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
198	Deep Machine Learning Techniques for the Detection and Classification of Sperm Whale Bioacoustics. <i>Scientific Reports</i> , 2019 , 9, 12588	4.9	28
197	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

196	Untethered flight of an insect-sized flapping-wing microscale aerial vehicle. <i>Nature</i> , 2019 , 570, 491-495	50.4	158
195	Robotic Artificial Muscles: Current Progress and Future Perspectives. <i>IEEE Transactions on Robotics</i> , 2019 , 35, 761-781	6.5	110
194	Tension Pistons: Amplifying Piston Force Using Fluid-Induced Tension in Flexible Materials. <i>Advanced Functional Materials</i> , 2019 , 29, 1901419	15.6	9
193	Soft Sensors for Curvature Estimation under Water in a Soft Robotic Fish 2019 ,		4
192	Effective locomotion at multiple stride frequencies using proprioceptive feedback on a legged microrobot. <i>Bioinspiration and Biomimetics</i> , 2019 , 14, 056001	2.6	8
191	Contact-implicit trajectory optimization using variational integrators. <i>International Journal of Robotics Research</i> , 2019 , 38, 1463-1476	5.7	7
190	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
189	A Vacuum-driven Origami Magic-ball Soft Gripper 2019 ,		50
188	Nitinol living hinges for millimeter-sized robots and medical devices 2019 ,		2
187	Yaw Torque Authority for a Flapping-Wing Micro-Aerial Vehicle 2019 ,		8
186	A bio-robotic remora disc with attachment and detachment capabilities for reversible underwater hitchhiking 2019 ,		1
185	Actuators: Tension Pistons: Amplifying Piston Force Using Fluid-Induced Tension in Flexible Materials (Adv. Funct. Mater. 30/2019). <i>Advanced Functional Materials</i> , 2019 , 29, 1970208	15.6	
184	Controlled flight of a microrobot powered by soft artificial muscles. <i>Nature</i> , 2019 , 575, 324-329	50.4	199
183	A Compact Laser-Steering End-Effector for Transoral Robotic Surgery 2019 ,		4
182	Ultrastrong and High-Stroke Wireless Soft Actuators through Liquid-Gas Phase Change. <i>Advanced Materials Technologies</i> , 2019 , 4, 1800381	6.8	20
181	Biocompatible Soft Fluidic Strain and Force Sensors for Wearable Devices. <i>Advanced Functional Materials</i> , 2019 , 29, 1807058	15.6	45
180	Soft Somatosensitive Actuators via Embedded 3D Printing. <i>Advanced Materials</i> , 2018 , 30, e1706383	24	248
179	Echinoderm-Inspired Tube Feet for Robust Robot Locomotion and Adhesion. <i>IEEE Robotics and Automation Letters</i> , 2018 , 3, 2222-2228	4.2	14

178	A Modular Soft Robotic Wrist for Underwater Manipulation. <i>Soft Robotics</i> , 2018 , 5, 399-409	9.2	50
177	Concomitant sensing and actuation for piezoelectric microrobots. <i>Smart Materials and Structures</i> , 2018 , 27, 065028	3.4	23
176	Soft Robotics: Soft Somatosensitive Actuators via Embedded 3D Printing (Adv. Mater. 15/2018). <i>Advanced Materials</i> , 2018 , 30, 1870106	24	7
175	The grand challenges of. <i>Science Robotics</i> , 2018 , 3,	18.6	464
174	The milliDelta: A high-bandwidth, high-precision, millimeter-scale Delta robot. <i>Science Robotics</i> , 2018 , 3,	18.6	48
173	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
172	Untethered soft robotics. <i>Nature Electronics</i> , 2018 , 1, 102-112	28.4	448
171	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
170	A Review of Propulsion, Power, and Control Architectures for Insect-Scale Flapping-Wing Vehicles. <i>Applied Mechanics Reviews</i> , 2018 , 70,	8.6	37
169	The principles of cascading power limits in small, fast biological and engineered systems. <i>Science</i> , 2018 , 360,	33.3	87
168	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
167	Meso scale flextensional piezoelectric actuators. <i>Smart Materials and Structures</i> , 2018 , 27, 015008	3.4	10
166	Controllable water surface to underwater transition through electrowetting in a hybrid terrestrial-aquatic microrobot. <i>Nature Communications</i> , 2018 , 9, 2495	17.4	43
165	Increasing the Dimensionality of Soft Microstructures through Injection-Induced Self-Folding. <i>Advanced Materials</i> , 2018 , 30, e1802739	24	48
164	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
163	Rotary-actuated folding polyhedrons for midwater investigation of delicate marine organisms. <i>Science Robotics</i> , 2018 , 3,	18.6	33
162	Ultra-Lightweight, High Power Density Lithium-Ion Batteries. <i>Batteries and Supercaps</i> , 2018 , 1, 131-134	5.6	17
161	SOFT ROBOTIC GLOVE FOR COMBINED ASSISTANCE AND REHABILITATION DURING ACTIVITIES OF DAILY LIVING 2018 , 135-157		1

160	Soft Curvature and Contact Force Sensors for Deep-Sea Grasping via Soft Optical Waveguides 2018 ,		13
159	Printing Strain Gauges on Intuitive Surgical da Vinci Robot End Effectors 2018 ,		4
158	Inverted and vertical climbing of a quadrupedal microrobot using electroadhesion. <i>Science Robotics</i> , 2018 , 3,	18.6	53
157	An End-to-End Approach to Self-Folding Origami Structures. <i>IEEE Transactions on Robotics</i> , 2018 , 34, 1409-1424	6.5	13
156	Compliant Low Profile Multi-Axis Force Sensors 2018 ,		2
155	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
154	A Modular Dielectric Elastomer Actuator to Drive Miniature Autonomous Underwater Vehicles 2018 ,		23
153	Compact Dielectric Elastomer Linear Actuators. <i>Advanced Functional Materials</i> , 2018 , 28, 1804328	15.6	88
152	Stabilizing air dampers for hovering aerial robotics: design, insect-scale flight tests, and scaling. <i>Autonomous Robots</i> , 2017 , 41, 1555-1573	3	10
151	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
150	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
149	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
148	A Modular Folded Laminate Robot Capable of Multi Modal Locomotion. <i>Springer Proceedings in Advanced Robotics</i> , 2017 , 59-70	0.6	3
147	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
146	A biologically inspired, flapping-wing, hybrid aerial-aquatic microrobot. <i>Science Robotics</i> , 2017 , 2,	18.6	87
145	Addressable wireless actuation for multijoint folding robots and devices. <i>Science Robotics</i> , 2017 , 2,	18.6	51
144	A biorobotic adhesive disc for underwater hitchhiking inspired by the remora suckerfish. <i>Science Robotics</i> , 2017 , 2,	18.6	110
143	Pop-Up MEMS One-Way Endobronchial Valve for Treatment of Chronic Obstructive Pulmonary Disease. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2017 , 11,	1.3	1

142	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
141	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
140	A high-force, high-stroke distal robotic add-on for endoscopy 2017 ,		5
139	A geometrically-amplified in-plane piezoelectric actuator for mesoscale robotic systems 2017 ,		6
138	A high speed soft robot based on dielectric elastomer actuators 2017 ,		52
137	An Additive Millimeter-Scale Fabrication Method for Soft Biocompatible Actuators and Sensors. <i>Advanced Materials Technologies</i> , 2017 , 2, 1700135	6.8	36
136	High speed trajectory control using an experimental maneuverability model for an insect-scale legged robot 2017 ,		7
135	An actuated gaze stabilization platform for a flapping-wing microrobot 2017 ,		1
134	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
133	A blade element approach to modeling aerodynamic flight of an insect-scale robot 2017 ,		4
132	Hybrid carbon fiber-textile compliant force sensors for high-load sensing in soft exosuits 2017 ,		12
131	A high speed motion capture method and performance metrics for studying gaits on an insect-scale legged robot 2017 ,		4
130	Self-Assembling, Low-Cost, and Modular mm-Scale Force Sensor. <i>IEEE Sensors Journal</i> , 2016 , 16, 69-76	4	20
129	An integrated design and fabrication strategy for entirely soft, autonomous robots. <i>Nature</i> , 2016 , 536, 451-5	50.4	1073
128	Multilayer Dielectric Elastomers for Fast, Programmable Actuation without Prestretch. <i>Advanced Materials</i> , 2016 , 28, 8058-8063	24	141
127	Comparative analysis of fabrication methods for achieving rounded microchannels in PDMS. <i>Journal of Micromechanics and Microengineering</i> , 2016 , 26, 115013	2	14
126	Fabrication of stretchable composites with anisotropic electrical conductivity for compliant pressure transducers 2016 ,		3
125	Non-linear resonance modeling and system design improvements for underactuated flapping-wing vehicles 2016 ,		18

124	The flying monkey: A mesoscale robot that can run, fly, and grasp 2016 ,		32
123	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
122	Biocompatible Pressure Sensing Skins for Minimally Invasive Surgical Instruments. <i>IEEE Sensors Journal</i> , 2016 , 16, 1294-1303	4	17
121	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
120	Soft Robotic Grippers for Biological Sampling on Deep Reefs. <i>Soft Robotics</i> , 2016 , 3, 23-33	9.2	399
119	Spiking neural network (SNN) control of a flapping insect-scale robot 2016 ,		21
118	Feedback-controlled self-folding of autonomous robot collectives 2016 ,		13
117	Influence of wing morphological and inertial parameters on flapping flight performance 2016 ,		10
116	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
115	BIOMECHANICS. Jumping on water: Surface tension-dominated jumping of water striders and robotic insects. <i>Science</i> , 2015 , 349, 517-21	33-3	188
114	SOFT ROBOTICS. A 3D-printed, functionally graded soft robot powered by combustion. <i>Science</i> , 2015 , 349, 161-5	33-3	608
113	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
112	Self-folding and self-actuating robots: A pneumatic approach 2015 ,		25
111	Development of the Polipo Pressure Sensing System for Dynamic Space-Suited Motion. <i>IEEE Sensors Journal</i> , 2015 , 15, 6229-6237	4	15
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	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015 , 20, 2214-2221	5-5	84
108	Soft robotic glove for combined assistance and at-home rehabilitation. <i>Robotics and Autonomous Systems</i> , 2015 , 73, 135-143	3-5	792
107	Model driven design for flexure-based Microrobots 2015 ,		25

106	Printing angle sensors for foldable robots 2015 ,		13
105	Feedback control of a legged microrobot with on-board sensing 2015 ,		9
104	Hybrid aerial and aquatic locomotion in an at-scale robotic insect 2015 ,		13
103	Wind disturbance rejection for an insect-scale flapping-wing robot 2015 ,		2
102	Design and control of a parallel linkage wrist for robotic microsurgery 2015 ,		9
101	Design and fabrication of an insect-scale flying robot for control autonomy 2015 ,		14
100	Rotating the heading angle of underactuated flapping-wing flyers by wriggle-steering 2015 ,		5
99	OS1-10 Translational Flight Stability of an Insect-Scale Flapping-Wing Robot(OS1: Bio-inspired Flight System Biomechanics II). <i>The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics</i> , 2015 , 2015.8, 71		
98	A bioinspired approach to torque control in an insect-sized flapping-wing robot 2014 ,		6
97	High speed locomotion for a quadrupedal microrobot. <i>International Journal of Robotics Research</i> , 2014 , 33, 1063-1082	5.7	83
96	Single-loop control and trajectory following of a flapping-wing microrobot 2014 ,		10
95	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
94	Adaptive control of a millimeter-scale flapping-wing robot. <i>Bioinspiration and Biomimetics</i> , 2014 , 9, 0250046		73
93	A Resilient, Untethered Soft Robot. <i>Soft Robotics</i> , 2014 , 1, 213-223	9.2	612
92	Embedded 3D printing of strain sensors within highly stretchable elastomers. <i>Advanced Materials</i> , 2014 , 26, 6307-12	24	1051
91	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
90	Algorithms for Rapid Development of Inherently-Manufacturable Laminate Devices 2014 ,		3
89	Self-folding origami: shape memory composites activated by uniform heating. <i>Smart Materials and Structures</i> , 2014 , 23, 094006	3.4	180

88	A monolithic approach to fabricating low-cost, millimeter-scale multi-axis force sensors for minimally-invasive surgery 2014 ,		15
87	Self-assembling sensors for printable machines 2014 ,		22
86	Wearable soft sensing suit for human gait measurement. <i>International Journal of Robotics Research</i> , 2014 , 33, 1748-1764	5.7	239
85	Wrist angle measurements using soft sensors 2014 ,		3
84	Bio-inspired mechanisms for inclined locomotion in a legged insect-scale robot 2014 ,		17
83	Pitch and yaw control of a robotic insect using an onboard magnetometer 2014 ,		15
82	A computational tool to improve flapping efficiency of robotic insects 2014 ,		2
81	Powertrain selection for a biologically-inspired miniature quadruped robot 2014 ,		15
80	A passive, origami-inspired, continuously variable transmission 2014 ,		17
79	Fly on the wall 2014 ,		13
78	A wirelessly powered, biologically inspired ambulatory microrobot 2014 ,		18
77	Mechanically programmed self-folding at the millimeter scale 2014 ,		4
76	Pneumatic Energy Sources for Autonomous and Wearable Soft Robotics. <i>Soft Robotics</i> , 2014 , 1, 263-274	9.2	160
75	Mechanical and electrical numerical analysis of soft liquid-embedded deformation sensors analysis. <i>Extreme Mechanics Letters</i> , 2014 , 1, 42-46	3.9	29
74	An end-to-end approach to making self-folded 3D surface shapes by uniform heating 2014 ,		26
73	An analytic framework for developing inherently-manufacturable pop-up laminate devices. <i>Smart Materials and Structures</i> , 2014 , 23, 094013	3.4	27
72	Printing Strain Gauges on Surgical Instruments for Force Measurement ¹ . <i>Journal of Medical Devices, Transactions of the ASME</i> , 2014 , 8,	1.3	8
71	An untethered jumping soft robot 2014 ,		73

70	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
69	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
68	An Origami-Inspired Approach to Worm Robots. <i>IEEE/ASME Transactions on Mechatronics</i> , 2013 , 18, 430-438	5.5	219
67	Elastic Element Integration for Improved Flapping-Wing Micro Air Vehicle Performance. <i>IEEE Transactions on Robotics</i> , 2013 , 29, 32-41	6.5	37
66	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
65	Model-free control of a flapping-wing flying microrobot 2013 ,		5
64	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
63	Flexible, stretchable tactile arrays from MEMS barometers 2013 ,		25
62	Robot self-assembly by folding: A printed inchworm robot 2013 ,		83
61	A Soft Strain Sensor Based on Ionic and Metal Liquids. <i>IEEE Sensors Journal</i> , 2013 , 13, 3405-3414	4	224
60	Controlled flight of a biologically inspired, insect-scale robot. <i>Science</i> , 2013 , 340, 603-7	33.3	649
59	Self-folding with shape memory composites. <i>Soft Matter</i> , 2013 , 9, 7688	3.6	196
58	Masked Deposition of Gallium-Indium Alloys for Liquid-Embedded Elastomer Conductors. <i>Advanced Functional Materials</i> , 2013 , 23, 5292-5296	15.6	210
57	Smart pneumatic artificial muscle actuator with embedded microfluidic sensing 2013 ,		34
56	Soft wearable motion sensing suit for lower limb biomechanics measurements 2013 ,		67
55	Microsurgical Devices by Pop-Up Book MEMS 2013 ,		16
54	Influence of surface traction on soft robot undulation. <i>International Journal of Robotics Research</i> , 2013 , 32, 1577-1584	5.7	55
53	Design and analysis of an integrated driver for piezoelectric actuators 2013 ,		9

52	Adaptive control for takeoff, hovering, and landing of a robotic fly 2013 ,		21
51	A jumping robotic insect based on a torque reversal catapult mechanism 2013 ,		3
50	Pop-up assembly of a quadrupedal ambulatory MicroRobot 2013 ,		23
49	Self-folding shape memory laminates for automated fabrication 2013 ,		26
48	Design and feedback control of a biologically-inspired miniature quadruped 2013 ,		4
47	Robustness of centipede-inspired millirobot locomotion to leg failures 2013 ,		7
46	Driving high voltage piezoelectric actuators in microrobotic applications. <i>Sensors and Actuators A: Physical</i> , 2012 , 176, 78-89	3.9	151
45	Design and Fabrication of Soft Artificial Skin Using Embedded Microchannels and Liquid Conductors. <i>IEEE Sensors Journal</i> , 2012 , 12, 2711-2718	4	497
44	Open-loop roll, pitch and yaw torques for a robotic bee 2012 ,		25
43	A soft multi-axis force sensor 2012 ,		18
42	Turning gaits and optimal undulatory gaits for a modular centipede-inspired millirobot 2012 ,		7
41	Active modular elastomer sleeve for soft wearable assistance robots 2012 ,		50
40	Design, fabrication, and modeling of the split actuator microrobotic bee 2012 ,		59
39	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
38	Towards printable robotics: Origami-inspired planar fabrication of three-dimensional mechanisms 2011 ,		76
37	Myriapod-like ambulation of a segmented microrobot. <i>Autonomous Robots</i> , 2011 , 31, 103-114	3	42
36	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
35	Soft artificial skin with multi-modal sensing capability using embedded liquid conductors 2011 ,		22

34	Pitch-angle feedback control of a Biologically Inspired flapping-wing microrobot 2011 ,		24
33	Lift force control of a flapping-wing microrobot 2011 ,		12
32	Passive undulatory gaits enhance walking in a myriapod millirobot 2011 ,		18
31	Design of centimeter-scale inchworm robots with bidirectional claws 2011 ,		25
30	Soft curvature sensors for joint angle proprioception 2011 ,		94
29	HAMR3: An autonomous 1.7g ambulatory robot 2011 ,		27
28	Wearable tactile keypad with stretchable artificial skin 2011 ,		93
27	Stretchable circuits and sensors for robotic origami 2011 ,		38
26	An ultra-high precision, high bandwidth torque sensor for microrobotics applications 2011 ,		9
25	First controlled vertical flight of a biologically inspired microrobot. <i>Bioinspiration and Biomimetics</i> , 2011 , 6, 036009	2.6	90
24	An ultra-high precision, high bandwidth torque sensor for microrobotics applications 2011 ,		6
23	Towards a multi-segment ambulatory microrobot 2010 ,		9
22	Stroke plane deviation for a microrobotic fly 2010 ,		23
21	Energetics of flapping-wing robotic insects: towards autonomous hovering flight 2010 ,		30
20	Tunable elastic stiffness with microconfined magnetorheological domains at low magnetic field. <i>Applied Physics Letters</i> , 2010 , 97, 164104	3.4	100
19	Fabrication and analysis of dielectric-elastomer minimum-energy structures for highly-deformable soft robotic systems 2010 ,		41
18	Biologically-inspired locomotion of a 2g hexapod robot 2010 ,		44
17	Hyperelastic pressure sensing with a liquid-embedded elastomer. <i>Journal of Micromechanics and Microengineering</i> , 2010 , 20, 125029	2	344

16	Mechanics and Actuation for Flapping-Wing Robotic Insects 2010 ,		2
15	Peristaltic locomotion with antagonistic actuators in soft robotics 2010 ,		36
14	Shear-mode contact splitting for a microtextured elastomer film. <i>Advanced Materials</i> , 2010 , 22, 3700-3	24	13
13	Body torque modulation for a microrobotic fly 2009 ,		28
12	Asymmetric flapping for a robotic fly using a hybrid power-control actuator 2009 ,		17
11	Milligram-scale high-voltage power electronics for piezoelectric microrobots 2009 ,		43
10	The First Takeoff of a Biologically Inspired At-Scale Robotic Insect. <i>IEEE Transactions on Robotics</i> , 2008 , 24, 341-347	6.5	605
9	A review of actuation and power electronics options for flapping-wing robotic insects 2008 ,		75
8	Design, fabrication and analysis of a body-caudal fin propulsion system for a microrobotic fish 2008 ,		2
7	Soft curvature sensors for joint angle proprioception		7
6	HAMR3: An autonomous 1.7g ambulatory robot		16
5	HAMR3: An autonomous 1.7g ambulatory robot		3
4	Contact-Implicit Optimization of Locomotion Trajectories for a Quadrupedal Microrobot		8
3	Injection Molding of Soft Robots. <i>Advanced Materials Technologies</i> ,2100605	6.8	4
2	A Modular and Self-Contained Fluidic Engine for Soft Actuators. <i>Advanced Intelligent Systems</i> ,2100094	6	1
1	An efficient, modular controller for flapping flight composing model-based and model-free components. <i>International Journal of Robotics Research</i> ,027836492110632		5-7