

# Koichi Suzumori

## List of Publications by Year in descending order

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302  
papers

3,724  
citations

218677

26  
h-index

214800

47  
g-index

306  
all docs

306  
docs citations

306  
times ranked

2104  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Bending Pneumatic Rubber Actuator Realizing Soft-bodied Manta Swimming Robot. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	220
2	Micro inspection robot for 1-in pipes. IEEE/ASME Transactions on Mechatronics, 1999, 4, 286-292.	5.8	167
3	Miniature Pneumatic Curling Rubber Actuator Generating Bidirectional Motion with One Air-Supply Tube. Advanced Robotics, 2011, 25, 1311-1330.	1.8	128
4	A micro ultrasonic motor using a micro-machined cylindrical bulk PZT transducer. Sensors and Actuators A: Physical, 2006, 127, 131-138.	4.1	126
5	Design of thin McKibben muscle and multifilament structure. Sensors and Actuators A: Physical, 2017, 261, 66-74.	4.1	106
6	Musculoskeletal lower-limb robot driven by multifilament muscles. ROBOMECH Journal, 2016, 3, .	1.6	100
7	Elastic materials producing compliant robots. Robotics and Autonomous Systems, 1996, 18, 135-140.	5.1	98
8	A Modular Soft Robotic Wrist for Underwater Manipulation. Soft Robotics, 2018, 5, 399-409.	8.0	98
9	Miniature soft hand with curling rubber pneumatic actuators. , 2009, , .		75
10	Fiberless flexible microactuator designed by finite-element method. IEEE/ASME Transactions on Mechatronics, 1997, 2, 281-286.	5.8	74
11	Design of a variable-stiffness robotic hand using pneumatic soft rubber actuators. Smart Materials and Structures, 2011, 20, 105015.	3.5	60
12	Trends in hydraulic actuators and components in legged and tough robots: a review. Advanced Robotics, 2018, 32, 458-476.	1.8	54
13	Index Finger of a Human-Like Robotic Hand Using Thin Soft Muscles. IEEE Robotics and Automation Letters, 2018, 3, 92-99.	5.1	53
14	Fabrication of "Weave" Muscles and Their Application to Soft Power Support Suit for Upper Limbs Using Thin McKibben Muscle. IEEE Robotics and Automation Letters, 2019, 4, 2532-2538.	5.1	53
15	Flexible displacement sensor using injected conductive paste. Sensors and Actuators A: Physical, 2008, 143, 272-278.	4.1	51
16	Very High Force Hydraulic McKibben Artificial Muscle with a p-Phenylene-2,6-benzobisoxazole Cord Sleeve. Advanced Robotics, 2010, 24, 233-254.	1.8	48
17	Load characteristics of mechanical pectoral fin. Experiments in Fluids, 2008, 44, 759-771.	2.4	41
18	Droplet generation using a torsional Langevin-type transducer and a micropore plate. Sensors and Actuators A: Physical, 2009, 155, 168-174.	4.1	40

#	ARTICLE	IF	CITATIONS
19	Roadmap on soft robotics: multifunctionality, adaptability and growth without borders. <i>Multifunctional Materials</i> , 2022, 5, 032001.	3.7	37
20	Intelligent Actuators Realizing Snake-like Small Robot for Pipe Inspection. , 2006, , .		35
21	New mobile pressure control system for pneumatic actuators, using reversible chemical reactions of water. <i>Sensors and Actuators A: Physical</i> , 2013, 201, 148-153.	4.1	35
22	Braiding Thin McKibben Muscles to Enhance Their Contracting Abilities. <i>IEEE Robotics and Automation Letters</i> , 2018, 3, 3240-3246.	5.1	35
23	A Cylindrical Micro-Ultrasonic Motor Using Micromachined Bulk Piezoelectric Vibrator with Glass Case. <i>Japanese Journal of Applied Physics</i> , 2006, 45, 4764-4769.	1.5	33
24	Active Textile Braided in Three Strands with Thin McKibben Muscle. <i>Soft Robotics</i> , 2019, 6, 250-262.	8.0	32
25	New Soft Robot Hand Configuration With Combined Biotensegrity and Thin Artificial Muscle. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 4345-4351.	5.1	31
26	Flow control valve for pneumatic actuators using particle excitation by PZT vibrator. <i>Sensors and Actuators A: Physical</i> , 2009, 155, 285-289.	4.1	29
27	Flexible artificial muscle by bundle of McKibben fiber actuators. , 2011, , .		29
28	Development of a 20-m-long Giacometti arm with balloon body based on kinematic model with air resistance. , 2017, , .		29
29	Muscle textile to implement soft suit to shift balancing posture of the body. , 2018, , .		29
30	A Compact McKibben Muscle Based Bending Actuator for Close-to-Body Application in Assistive Wearable Robots. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 3042-3049.	5.1	29
31	An ultrasonic motor for cryogenic temperature using bolt-clamped Langevin-type transducer. <i>Sensors and Actuators A: Physical</i> , 2012, 184, 134-140.	4.1	28
32	New concept and fundamental experiments of a smart pneumatic artificial muscle with a conductive fiber. <i>Sensors and Actuators A: Physical</i> , 2016, 250, 48-54.	4.1	28
33	Automatic pipe negotiation control for snake-like robot. , 2008, , .		27
34	Development of large intestine endoscope changing its stiffness. , 2009, , .		27
35	Long-Legged Hexapod Giacometti Robot Using Thin Soft McKibben Actuator. <i>IEEE Robotics and Automation Letters</i> , 2018, 3, 100-107.	5.1	26
36	A proposal of a new rotational-compliant joint with oil-hydraulic McKibben artificial muscles. <i>Advanced Robotics</i> , 2018, 32, 511-523.	1.8	25

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37	IPMC Monolithic Thin Film Robots Fabricated Through a Multi-Layer Casting Process. IEEE Robotics and Automation Letters, 2019, 4, 1335-1342.	5.1	25
38	Development of an Intelligent Chair Tool System Applying New Intelligent Pneumatic Actuators. Advanced Robotics, 2010, 24, 1503-1528.	1.8	24
39	Electrically-Driven Soft Fluidic Actuators Combining Stretchable Pumps With Thin McKibben Muscles. Frontiers in Robotics and AI, 2019, 6, 146.	3.2	24
40	Application of Micro-Electro-Mechanical Systems (MEMS) as Sensors: A Review. Journal of Robotics and Mechatronics, 2020, 32, 281-288.	1.0	24
41	Development of an Intelligent Pneumatic Cylinder for Distributed Physical Human-Machine Interaction. Advanced Robotics, 2009, 23, 203-225.	1.8	23
42	In-Pipe Inspection Micro Robot Adaptable to Changes in Pipe Diameter. Journal of Robotics and Mechatronics, 2003, 15, 609-615.	1.0	23
43	Development of power robot hand with shape adaptability using hydraulic McKibben muscles. , 2010, , .		22
44	Fabrication and basic experiments of pneumatic multi-chamber rubber tube actuator for assisting colonoscopy insertion. , 2010, , .		22
45	Applying Flexible Microactuators to Pipeline Inspection Robots. , 1993, , 515-520.		21
46	A NEW PNEUMATIC CONTROL SYSTEM USING MULTIPLEX PNEUMATIC TRANSMISSION. Proceedings of the JFPS International Symposium on Fluid Power, 2008, 2008, 439-442.	0.1	21
47	Comparative Assessment of Several Nutation Motor Types. IEEE/ASME Transactions on Mechatronics, 2009, 14, 82-92.	5.8	21
48	Soft Tensegrity Robot Driven by Thin Artificial Muscles for the Exploration of Unknown Spatial Configurations. IEEE Robotics and Automation Letters, 2022, 7, 5349-5356.	5.1	21
49	Micro pneumatic curling actuator - Nematode actuator -. , 2009, , .		20
50	Novel design of rubber tube actuator improving mountability and drivability for assisting colonoscopy insertion. , 2011, , .		20
51	Development of very high force hydraulic McKibben artificial muscle and its application to shape-adaptable power hand. , 2009, , .		19
52	Recurrent Braiding of Thin McKibben Muscles to Overcome Their Limitation of Contraction. Soft Robotics, 2020, 7, 251-258.	8.0	19
53	Integrated flexible microactuator systems. Robotica, 1996, 14, 493-498.	1.9	18
54	3-D finite-element analysis of fiber-reinforced soft bending actuator for finger flexion. , 2013, , .		18

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55	Long bending rubber mechanism combined contracting and extending fluidic actuators. , 2013, , .		18
56	Development of a stable localized visual inspection system for underwater structures. Advanced Robotics, 2016, 30, 1415-1429.	1.8	18
57	Design of a weight-compensated and coupled tendon-driven articulated long-reach manipulator. , 2016, , .		18
58	A Method of Designing and Fabricating McKibben Muscles Driven by 7 MPa Hydraulics. International Journal of Automation Technology, 2012, 6, 482-487.	1.0	18
59	Experimental Evaluation of Textile Mechanisms Made of Artificial Muscles. , 2019, , .		17
60	Development of Contraction and Extension Artificial Muscles with Different Braid Angles and Their Application to Stiffness Changeable Bending Rubber Mechanism by Their Combination. Journal of Robotics and Mechatronics, 2011, 23, 582-588.	1.0	17
61	Emulsion Generating Microchannel Device Oscillated by 2.25 MHz Ultrasonic Vibrator. Japanese Journal of Applied Physics, 2010, 49, 07HE13.	1.5	16
62	Development of Pneumatic Actuated Seating System to aid chair design. , 2010, , .		16
63	Design and evaluation of orifice arrangement for particle-excitation flow control valve. Sensors and Actuators A: Physical, 2011, 171, 283-291.	4.1	16
64	Bolt-Clamped Langevin-Type Transducer for Ultrasonic Motor used at Ultralow Temperature. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2012, 6, 104-112.	0.7	16
65	Modeling of Synthetic Fiber Ropes and Frequency Response of Long-Distance Cable-Pulley System. IEEE Robotics and Automation Letters, 2018, 3, 1743-1750.	5.1	16
66	Soft manipulator using thin McKibben actuator. , 2018, , .		16
67	Snake-like robot negotiating three-dimensional pipelines. , 2007, , .		15
68	Controller Design for Simulation Control of Intelligent Pneumatic Actuators (IPA) System. Procedia Engineering, 2012, 41, 593-599.	1.2	15
69	Field test for verifying the capability of two high-powered hydraulic small robots for rescue operations. , 2006, , .		14
70	Distributed Physical Human Machine Interaction Using Intelligent Pneumatic Cylinders. , 2008, , .		14
71	Untethered three-arm pneumatic robot using hose-free pneumatic actuator. , 2016, , .		14
72	Ultrasonic Motor Using Two Sector-Shaped Piezoelectric Transducers for Sample Spinning in High Magnetic Field. Journal of Robotics and Mechatronics, 2013, 25, 384-391.	1.0	14

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73	Analysis of the multi-balloon dielectric elastomer actuator for traveling wave motion. Sensors and Actuators A: Physical, 2022, 333, 113243.	4.1	14
74	Multiplex pneumatic control method for multi-drive system. Sensors and Actuators A: Physical, 2010, 164, 88-94.	4.1	13
75	Development of Worm-Rack Driven Cylindrical Crawler Unit. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2013, 7, 422-431.	0.7	13
76	Proposal of flexible robotic arm with thin McKibben actuators mimicking octopus arm structure. , 2016, , .		13
77	Shape Recognition of a Tensegrity With Soft Sensor Threads and Artificial Muscles Using a Recurrent Neural Network. IEEE Robotics and Automation Letters, 2021, 6, 6228-6234.	5.1	13
78	Giraffe Neck Robot: First Step Toward a Powerful and Flexible Robot Prototyping Based on Giraffe Anatomy. IEEE Robotics and Automation Letters, 2022, 7, 3539-3546.	5.1	13
79	Development of Pneumatic Wobble Motors.. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 1999, 42, 392-397.	0.3	12
80	Beautiful Flexible Microactuator changing its structural color with variable pitch grating. , 2011, , .		12
81	GPC Controller Design for an Intelligent Pneumatic Actuator. Procedia Engineering, 2012, 41, 657-663.	1.2	12
82	Real-time position control of intelligent pneumatic actuator (IPA) system using optical encoder and pressure sensor. Sensor Review, 2013, 33, 341-351.	1.8	12
83	A study on temperature dependence of an ultrasonic motor for cryogenic environment. Japanese Journal of Applied Physics, 2015, 54, 07HE15.	1.5	12
84	Development of a gas/liquid phase change actuator for high temperatures. ROBOMECH Journal, 2016, 3, .	1.6	12
85	Design of knee support device based on four-bar linkage and hydraulic artificial muscle. ROBOMECH Journal, 2020, 7, .	1.6	12
86	Omnidirectional Soft Robot Platform with Flexible Actuators for Medical Assistive Device. International Journal of Automation Technology, 2016, 10, 494-502.	1.0	12
87	Micro-Walking Robot Driven by Flexible Microactuator. Journal of Robotics and Mechatronics, 1993, 5, 537-541.	1.0	12
88	Design and control of new intelligent pneumatic cylinder for intelligent chair tool application. , 2009, , .		11
89	An Ultrasonic Motor for Use at Ultralow Temperature Using Lead Magnesium Niobate“Lead Titanate Single Crystal. Japanese Journal of Applied Physics, 2012, 51, 07GE09.	1.5	11
90	System Identification model for an Intelligent Pneumatic Actuator (IPA) system. , 2012, , .		11

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91	Nonlinear mathematical model of an Intelligent Pneumatic Actuator (IPA) systems: Position and force controls. , 2012, , .		11
92	Study of swing-grouser wheel: A wheel for climbing high steps, even in low friction environment. , 2015, , .		11
93	Predictive Functional Control with Observer (PFC-O) Design and Loading Effects Performance for a Pneumatic System. Arabian Journal for Science and Engineering, 2015, 40, 633-643.	1.1	11
94	Microdroplet generation using an ultrasonic torsional transducer which has a micropore with a tapered nozzle. Archive of Applied Mechanics, 2016, 86, 1751-1762.	2.2	11
95	Multifilament pneumatic artificial muscles to mimic the human neck. , 2017, , .		11
96	Bundled Wire Drive: Proposal and Feasibility Study of a Novel Tendon-Driven Mechanism Using Synthetic Fiber Ropes. IEEE Robotics and Automation Letters, 2019, 4, 966-972.	5.1	11
97	Modeling and Force Control of Thin Soft McKibben Actuator. International Journal of Automation Technology, 2016, 10, 487-493.	1.0	11
98	Programmable System on Chip Distributed Communication and Control Approach for Human Adaptive Mechanical System. Journal of Computer Science, 2010, 6, 852-861.	0.6	10
99	A new mobile pressure control system for pneumatic actuators using reversible chemical reactions of water. , 2013, , .		10
100	Static analysis of powered low-back orthosis driven by thin pneumatic artificial muscles considering body surface deformation. , 2015, , .		10
101	An Ultrasonic Motor for Use at Ultralow Temperature Using Lead Magnesium Niobate“Lead Titanate Single Crystal. Japanese Journal of Applied Physics, 2012, 51, 07GE09.	1.5	10
102	Development of Nutation Motors (1st Report, Driving Principle and Basic Characteristics of Pneumatic) Tj ETQq0 0 0 rgBT /Overlock 10 Mechanical Engineers, Part C, 2006, 72, 1194-1199.	0.2	9
103	A functional adhesive robot skin with integrated micro rubber suction cups. , 2012, , .		9
104	Predictive Functional Controller design for pneumatic actuator with stiffness characteristic. , 2013, , .		9
105	A Proposal of Super Long Reach Articulated Manipulator with Gravity Compensation using Thrusters. , 2018, , .		9
106	Development of Active Links for Physical Man-Machine Interaction. Journal of Robotics and Mechatronics, 2005, 17, 293-301.	1.0	9
107	Development of Micro Inspection Robot for Small Piping.. Journal of the Robotics Society of Japan, 1999, 17, 389-395.	0.1	9
108	Micro rubber structure realizing multi-legged passive walking. , 2008, , .		8

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109	Design and evaluation of low-profile micro ultrasonic motors using sector shaped piezoelectric vibrators. , 2008, , .		8
110	Three-Port Valve to Generate Length-Controllable Slug Flow for Chemical Process(Machine Elements,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf Mechanical Engineers, Part C, 2010, 76, 734-740.	0.2	8
111	Development of a hand rehabilitation system to prevent contracture for finger joints based on the therapy of occupational therapists (Massage a hand and range of motion exercises using pneumatic) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	0.2	8
112	Energy regenerative hose-free pneumatic actuator. Sensors and Actuators A: Physical, 2016, 249, 1-7.	4.1	8
113	Development of Variable Stiffness Colonoscope Consisting of Pneumatic Drive Devices. International Journal of Automation Technology, 2011, 5, 551-558.	1.0	8
114	Development of a Rubber Soft Actuator Driven with Gas/Liquid Phase Change. International Journal of Automation Technology, 2016, 10, 517-524.	1.0	8
115	New Robotics Pioneered by Fluid Power. Journal of Robotics and Mechatronics, 2020, 32, 854-862.	1.0	8
116	Alternating pressure control system for hydraulic robots. Mechatronics, 2022, 85, 102822.	3.3	8
117	Development of nutation motors (improvement of pneumatic nutation motor by optimizing diaphragm) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	1.5	7
118	Development and control of a multifingered robotic hand using a pneumatic tendon-driven actuator. Journal of Intelligent Material Systems and Structures, 2012, 23, 345-352.	2.5	7
119	An Ultrasonic Motor Using a Titanium Transducer for a Cryogenic Environment. Japanese Journal of Applied Physics, 2013, 52, 07HE13.	1.5	7
120	Experimental investigation of conductive fibers for a smart pneumatic artificial muscle. , 2015, , .		7
121	A novel long-reach robot with propulsion through water-jet. , 2016, , .		7
122	Super-low friction and lightweight hydraulic cylinder using multi-directional forging magnesium alloy and its application to robotic leg. Advanced Robotics, 2018, 32, 524-534.	1.8	7
123	Soft Polymer-Electrolyte-Fuel-Cell Tube Realizing Air-Hose-Free Thin McKibben Muscles. , 2019, , .		7
124	PF-IPMC: Paper/Fabric Assisted IPMC Actuators for 3D Crafts. IEEE Robotics and Automation Letters, 2020, 5, 4035-4041.	5.1	7
125	Safety-enhanced control strategy of a power soft robot driven by hydraulic artificial muscles. ROBOMECH Journal, 2021, 8, .	1.6	7
126	Self-excitation pneumatic soft actuator inspired by vocal cords. Sensors and Actuators A: Physical, 2021, 331, 112816.	4.1	7



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127	Gas/Liquid Phase Change Actuator for Use in Extreme Temperature Environments. International Journal of Automation Technology, 2014, 8, 140-146.	1.0	7
128	Comparison in Characteristics of Textile Woven by Thin Pneumatic Artificial Muscle. The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM, 2015, 2015.6, 43-44.	0.0	7
129	Electrostatic linear microactuator mechanism for focusing a CCD camera. Journal of Lightwave Technology, 1999, 17, 43-47.	4.6	6
130	Development of tetra chamber actuator. , 2007, , .		6
131	Force Feedback Mouse with Differential Mechanism for Omni-Traveling. , 2007, , .		6
132	Optimum design of pneumatic multi-chamber rubber tube actuator generating traveling deformation waves for colonoscope insertion. , 2008, , .		6
133	Pneumatic Valve Operated by Multiplex Pneumatic Transmission. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2008, 2, 222-229.	0.7	6
134	Design and Evaluation of Emulsion Generation Device Using Ultrasonic Vibration and Microchannel. Japanese Journal of Applied Physics, 2011, 50, 07HE24.	1.5	6
135	Evaluation of generated micro droplets using micropore plates oscillated by ultrasonic torsional transducers. Sensors and Actuators A: Physical, 2012, 185, 92-92.	4.1	6
136	Intelligent pneumatic assisted therapy on ankle rehabilitation. , 2015, , .		6
137	Development of Hiryu-II: A Long-Reach Articulated Modular Manipulator Driven by Thrusters. IEEE Robotics and Automation Letters, 2020, 5, 4963-4969.	5.1	6
138	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
139	Development of Electromagnetic Nutation Motor (Electromagnetic Investigation). Journal of Robotics and Mechatronics, 2004, 16, 327-332.	1.0	6
140	Technical Terms of Electric Motors. Journal of the Robotics Society of Japan, 2007, 25, 1057-1058.	0.1	6
141	An in-wheel type micro ultrasonic motor utilizing sector shaped piezoelectric vibrators. , 2007, , .		5
142	NEW PNEUMATIC ACTUATORS PRODUCING BREAKTHROUGH IN MECHATRONICS. Proceedings of the JFPS International Symposium on Fluid Power, 2008, 2008, 197-202.	0.1	5
143	Fabrication and evaluation of various types of micro one-way valves through micro rubber molding process. Journal of Mechanical Science and Technology, 2010, 24, 219-222.	1.5	5
144	Development of large intestine endoscope changing its stiffness -2nd report: Improvement of stiffness change device and insertion experiment-. , 2010, , .		5

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145	Proportional-integrative controller design of Pneumatic system using particle swarm optimization. , 2013, , .		5
146	System Identification and Embedded Controller Design for Pneumatic Actuator with Stiffness Characteristic. Mathematical Problems in Engineering, 2014, 2014, 1-13.	1.1	5
147	Next-generation Actuators Leading New Robotics. Journal of the Robotics Society of Japan, 2015, 33, 656-659.	0.1	5
148	Hose-free pneumatic bags-muscle driven by gas/liquid conversion. , 2016, , .		5
149	A small three-way valve using particle excitation with piezoelectric transducers for hydraulic actuators. Advanced Robotics, 2018, 32, 500-510.	1.8	5
150	Particle-Excitation Flow-Control Valve using Piezo Vibration-Improvement for a High Flow Rate and Research on Controllability. IEEJ Transactions on Sensors and Micromachines, 2017, 137, 32-37.	0.1	5
151	New Pneumatic Rubber Leg Mechanism for Omnidirectional Locomotion. International Journal of Automation Technology, 2014, 8, 222-230.	1.0	5
152	Pneumatic Rubber Actuator Driven by Elastic Traveling Waves.. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 1999, 42, 398-403.	0.3	4
153	Micro rubber structure realizing multi-legged passive walking -integration and miniaturization by micro rubber molding process-. , 2009, , .		4
154	Pneumatic flow control valve using particle excitation by PZT transducer. , 2009, , .		4
155	Evaluation of electro conductive film and strain gage as displacement sensor for pneumatic artificial muscle. , 2011, , .		4
156	Development of a thin electromagnetic wobble motor. , 2011, , .		4
157	Development of Active Separation System for Slug Flow in Chemical Process. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2011, 77, 1109-1118.	0.2	4
158	PD-Fuzzy Logic Controller Design for Position Control of Intelligent Pneumatic Actuator System. Communications in Computer and Information Science, 2012, , 288-295.	0.5	4
159	Droplets generation in the flowing ambient liquid by using an ultrasonic torsional transducer. , 2012, , .		4
160	Generalized predictive controller using Bat algorithm for double acting pneumatic cylinder. , 2013, , .		4
161	Eccentric Crank Rover: A novel crank wheel mechanism with eccentric wheels. , 2016, , .		4
162	R-Crank: Amphibious all terrain mobile robot. , 2016, , .		4

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163	Highly responsive and stable flow control valve using a PZT transducer. , 2016, , .		4
164	Proposal of tendon-driven elastic telescopic arm and initial bending experiment. , 2017, , .		4
165	New Hydraulic Components for Tough Robots. Springer Tracts in Advanced Robotics, 2019, , 401-451.	0.4	4
166	A small three-way valve using particle excitation driven by a single piezoelectric transducer for hydraulic actuator. Sensors and Actuators A: Physical, 2020, 316, 112363.	4.1	4
167	A Wearable Ankle Exercise Device for Deep Vein Thrombosis Prevention Using Thin McKibben Muscles. , 2020, , .		4
168	Proposal and Prototyping of Self-Excited Pneumatic Actuator Using Automatic-Flow-Path-Switching-Mechanism. IEEE Robotics and Automation Letters, 2020, 5, 3058-3065.	5.1	4
169	Pneumatic Soft Actuator Using Self-Excitation Based on Automatic-Jet-Switching-Structure. IEEE Robotics and Automation Letters, 2020, 5, 4042-4048.	5.1	4
170	Tension Control Method Utilizing Antagonistic Tension to Enlarge the Workspace of Coupled Tendon-Driven Articulated Manipulator. IEEE Robotics and Automation Letters, 2021, 6, 6647-6653.	5.1	4
171	Droplets generation using micropore plate driven by Langevin type transducer. , 0, , .		4
172	Development of a Hose-Free FMA Driven by a Built-In Gas/Liquid Chemical Reactor. International Journal of Automation Technology, 2016, 10, 511-516.	1.0	4
173	Elastic Pectoral Fin Actuators for Biomimetic Underwater Vehicle. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2007, 5, 15-25.	0.2	3
174	Development of Active 80-faced Polyhedron for haptic physical human-machine interface. , 2009, , .		3
175	Experimental analysis on pneumatic flow control valve driven by PZT vibrator. , 2010, , .		3
176	Expectations about New Actuators. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2011, 77, 2412-2419.	0.2	3
177	Comparison between PFC and PID control system for tendon-driven balloon actuator. , 2013, , .		3
178	Predictive Functional Control of Tendon-Driven Actuator Using Pneumatic Balloon. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2013, 7, 752-762.	0.7	3
179	Simulations of fiber braided bending actuator: Investigation on position of fiber layer placement and air chamber diameter. , 2015, , .		3
180	Optimization of orifice position in particle-excitation valve for proportional flow control. ROBOMECH Journal, 2017, 4, .	1.6	3

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181	Tendon-driven Elastic Telescopic Arm -Integration of Linear Motion and Bending Motion-, 2020, , .		3
182	2315 Development of three-chamber micro pneumatic wobble motor. The Proceedings of the Machine Design and Tribology Division Meeting in JSME, 2006, 2006.6, 295-297.	0.0	3
183	Development of Novel Particle Excitation Flow Control Valve for Stable Flow Characteristics. International Journal of Automation Technology, 2016, 10, 540-548.	1.0	3
184	Design and Evaluation of Emulsion Generation Device Using Ultrasonic Vibration and Microchannel. Japanese Journal of Applied Physics, 2011, 50, 07HE24.	1.5	3
185	Micro Rubber Structures for Passive Walking. Journal of Robotics and Mechatronics, 2010, 22, 167-172.	1.0	3
186	Overview of the Kakenhi Grant-in-Aid for Scientific Research on Innovative Areas: Science of Soft Robots. Journal of Robotics and Mechatronics, 2022, 34, 195-201.	1.0	3
187	A Study of Pneumatic Wobble Motors.. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 1998, 64, 2102-2107.	0.2	2
188	Development of separable micro reactor system with integrated fluid control devices for personalized medicine. , 2007, , .		2
189	Development of Rescue Robots using Ultra High Pressure Hydraulic Small Actuators and Field Tests for Verification of their Possibilities. Journal of the Robotics Society of Japan, 2007, 25, 761-769.	0.1	2
190	Development of Micro Rotary Reactor Causing Spiral Laminar Flow Interfaces. IEEJ Transactions on Sensors and Micromachines, 2007, 127, 47-52.	0.1	2
191	A cylindrical ultrasonic motor for NMR sample spinning in high magnetic field. , 2009, , .		2
192	A micro ultrasonic motor controlled by using a built-in micro magnetic encoder. , 2010, , .		2
193	PLZT film actuators deposited by a hydrothermal method. , 2010, , .		2
194	Micro droplet generation using micropore plates oscillated by ultrasonic torsional transducers. , 2011, , .		2
195	A low-profile micro ultrasonic motor for NMR sample spinning in high magnetic field. , 2011, , .		2
196	Continuous air control using particle excitation valve. , 2011, , .		2
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