Kinji Asaka

List of Publications by Year
in descending order

225 papers	6,767 citations	66315 42 h-index	76872 74 g-index
234 all docs	234 docs citations	234 times ranked	3783 citing authors

#	Article	IF	Citations
1	Design and Fabrication of 3D Papercraft IPMC Robots. , 2022, , .		1
2	Modeling and characterization for straight twisted polymer fiber actuators in blocked torsion: effect of radial thermal expansion. Smart Materials and Structures, 2021, 30, 065023.	1.8	3
3	Actuation and blocking force of carbon nanotube/polymer actuator with platelet-shaped graphene. Japanese Journal of Applied Physics, 2020, 59, SDDF08.	0.8	5
4	Effect of ionic liquids as additives for improving the performance of plasticized PVC gel actuators. Smart Materials and Structures, 2020, 29, 025003.	1.8	15
5	High-performance ionic and non-ionic fluoropolymer/ionic liquid (with quaternary cation and) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf Materials Today: Proceedings, 2020, 20, 265-272.	0.9	7
6	Symbolic finite element discretization and model order reduction of a multiphysics model for IPMC sensors. Smart Materials and Structures, 2020, 29, 115037.	1.8	10
7	On the fluctuation phenomenon of axial thermal stress of a torsional fishing-line artificial muscle (Twisted Polymer Fiber) actuator. , 2020, , .		1
8	Simultaneous 3D Forming and Patterning Method of Realizing Soft IPMC Robots. , 2020, , .		2
9	245 mm length IPMC catheter with an ellipse-like cross-section. Smart Materials and Structures, 2019, 28, 095028.	1.8	3
10	IPMC Monolithic Thin Film Robots Fabricated Through a Multi-Layer Casting Process. IEEE Robotics and Automation Letters, 2019, 4, 1335-1342.	3.3	25
11	Nanotube length and density dependences of electrical and mechanical properties of carbon nanotube fibres made by wet spinning. Carbon, 2019, 152, 1-6.	5.4	23
12	Controllable and durable ionic electroactive polymer actuator based on nanoporous carbon nanotube film electrode. Smart Materials and Structures, 2019, 28, 085032.	1.8	15
13	High-performance cellulose nanofibers, single-walled carbon nanotubes and ionic liquid actuators with a poly(vinylidene fluoride-co-hexafluoropropylene)/ionic liquid gel electrolyte layer. RSC Advances, 2019, 9, 8215-8221.	1.7	13
14	Soft Polymer-Electrolyte-Fuel-Cell Tube Realizing Air-Hose-Free Thin McKibben Muscles. , 2019, , .		7
15	Experimental investigation of temperature-dependent hysteresis of fishing-line artificial muscle (twisted and coiled polymer fiber) actuator. , 2019, , .		10
16	Modeling and Control of Fishing-Line/Sewing-Thread Artificial Muscles (Twisted and Coiled Polymer) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5		2
17	Underwater Soft Robots. , 2019, , 599-613.		0
18	Distributed Parameter System Modeling. , 2019, , 403-415.		0

#	Article	IF	Citations
19	Molecular Mechanism of Electrically Induced Volume Change of Porous Electrodes. , 2019, , 379-388.		0
20	Carbon Nanotube/Ionic Liquid Composites. , 2019, , 203-215.		0
21	Finite difference method and finite element method for modeling IPMC sensor voltage. , 2019, , .		0
22	Frequency Response of Honeycomb Structured IPMC Actuator Fabricated through 3D Printing with Dispersion Liquid. , 2019, , .		1
23	Effect of platelet-shaped graphene additives on actuating response of carbon nanotube/ionic liquid/polymer composite actuators. Japanese Journal of Applied Physics, 2018, 57, 03EH08.	0.8	1
24	High-performance graphene oxide/vapor-grown carbon fiber composite polymer actuator. Sensors and Actuators B: Chemical, 2018, 255, 2829-2837.	4.0	26
25	Self-standing cellulose nanofiber/poly(3,4-ethylenedioxythiophene):poly(4-styrenesulfonate)/ionic liquid actuators with superior performance. RSC Advances, 2018, 8, 33149-33155.	1.7	19
26	Performance enhancement of PEDOT:poly(4-styrenesulfonate) actuators by using ethylene glycol. RSC Advances, 2018, 8, 17732-17738.	1.7	12
27	Actuation mechanism of dry-type polymer actuators composed by carbon nanotubes and ionic liquids. Sensors and Actuators B: Chemical, 2018, 273, 955-965.	4.0	16
28	Actuation and blocking force of stacked nanocarbon polymer actuators. International Journal of Smart and Nano Materials, 2018, 9, 184-198.	2.0	4
29	Electrical properties and electromechanical modeling of plasticized PVC gel actuators. Sensors and Actuators B: Chemical, 2018, 273, 1246-1256.	4.0	42
30	A micropipette system based on low driving voltage carbon nanotube actuator. Microsystem Technologies, 2017, 23, 2657-2661.	1.2	5
31	Strainâ€“capacitance relationship in polymer actuators based on single-walled carbon nanotubes and ionic liquid gels. Faraday Discussions, 2017, 199, 405-422.	1.6	3
32	Effect of surfactants and dispersion methods on properties of single-walled carbon nanotube fibers formed by wet-spinning. Applied Physics Express, 2017, 10, 055101.	1.1	15
33	Position control of twisted and coiled polymer actuator using a controlled fan for cooling. Proceedings of SPIE, 2017, , .	0.8	14
34	Study on simplification of a multi-physical model of IPMC sensor generating voltage as sensing signal. Proceedings of SPIE, 2017, , .	0.8	2
35	Superior performance of PEDOT:Poly(4-styrenesulfonate)/vapor-grown carbon fibre/ionic liquid actuators exhibiting synergistic effects. Sensors and Actuators B: Chemical, 2017, 248, 273-279.	4.0	25
36	Voltage-controlled IPMC actuators for accommodating intra-ocular lens systems. Smart Materials and Structures, 2017, 26, 045021.	1.8	18

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37	Elliptical-like cross-section ionic polymer-metal composite actuator for catheter surgery. Sensors and Actuators A: Physical, 2017, 267, 235-241.	2.0	8
38	Ferroelectric Phase Behaviors in Porous Electrodes. Langmuir, 2017, 33, 11574-11581.	1.6	1
39	High-performance polymer actuators based on an iridium oxide and vapor-grown carbon nanofibers combining electrostatic double-layer and faradaic capacitor mechanisms. Sensors and Actuators B: Chemical, 2017, 240, 536-542.	4.0	16
40	Faradaic and Capacitive Components of the CNT Electrochemical Responses. Frontiers in Materials, 2016, 3, .	1.2	17
41	Voltage-controlled accommodating IOL system using an ion polymer metal composite actuator. Optics Express, 2016, 24, 23280.	1.7	9
42	Electrochemical and electromechanical properties of superior-performance hybrid polymer actuators exhibiting synergistic effects due to manganese oxide and multi-walled carbon nanotubes on various ionic liquids. RSC Advances, 2016, 6, 66360-66367.	1.7	3
43	IPMCs as EAPs: Applications. , 2016, , 1-24.		0
44	A multi-physical model of actuation response in dielectric gels. Smart Materials and Structures, 2016, 25, 125032.	1.8	1
45	Effects of cation on electrical responses of ionic polymer-metal composite sensors at various ambient humidities. Journal of Applied Physics, 2016, 120, .	1.1	25
46	Application-oriented simplification of actuation mechanism and physical model for ionic polymer-metal composites. Journal of Applied Physics, 2016, 120, .	1.1	15
47	Multi-physical model of cation and water transport in ionic polymer-metal composite sensors. Journal of Applied Physics, 2016, 119, .	1.1	31
48	The effect of ambient humidity on the electrical response of ion-migration-based polymer sensor with various cations. Smart Materials and Structures, 2016, 25, 055024.	1.8	17
49	A multi-physical model for charge and mass transport in a flexible ionic polymer sensor. Proceedings of SPIE, 2016, , .	0.8	1
50	General thermodynamic theory of the stress-composition interaction for bucky-gel electrochemical actuators. Proceedings of SPIE, 2016, , .	0.8	0
51	Position control of fishing line artificial muscles (coiled polymer actuators) from nylon thread. Proceedings of SPIE, 2016, , .	0.8	22
52	Wet spinning of continuous polymer-free carbon-nanotube fibers with high electrical conductivity and strength. Applied Physics Express, 2016, 9, 055101.	1.1	33
53	Relationship between Mechanical and Electrical Properties of Continuous Polymer-Free Carbon Nanotube Fibers by Wet-Spinning Method and Nanotube-Length Estimated by Far-Infrared Spectroscopy. Journal of Physical Chemistry C, 2016, 120, 20419-20427.	1.5	27
54	IPMCs as EAPs: How to Start Experimenting with Them. , 2016, , 215-233.		1

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55	Electrochemically Driven Carbon-Based Materials as EAPs: Fundamentals and Device Configurations. , 2016, , 439-454.		0
56	IPMCs as EAPs: Fundamentals. , 2016, , 131-150.		2
57	IPMCs as EAPs: Applications. , 2016, , 191-214.		2
58	High-Performance PEDOT:PSS/Single-Walled Carbon Nanotube/Ionic Liquid Actuators Combining Electrostatic Double-Layer and Faradaic Capacitors. Langmuir, 2016, 32, 7210-7218.	1.6	64
59	IPMCs as EAPs: How to Start Experimenting with Them. , 2016, , 1-19.		0
60	Electrochemical and Electromechanical Properties of Activated Multi-walled Carbon Nanotube Polymer Actuator that Surpass the Performance of a Single-walled Carbon Nanotube Polymer Actuator. Materials Today: Proceedings, 2016, 3, S178-S183.	0.9	15
61	Influence of Ambient Humidity on the Voltage Response of Ionic Polymerâ€“Metal Composite Sensor. Journal of Physical Chemistry B, 2016, 120, 3215-3225.	1.2	34
62	Development of human-friendly polymeric actuators based on nano-carbon electrodes. Synthesiology, 2016, 9, 117-123.	0.2	8
63	IPMCs as EAPs: Fundamentals. , 2016, , 1-20.		0
64	Development of human-friendly polymeric actuators based on nano-carbon electrodes. Synthesiology, 2016, 9, 117-124.	0.2	1
65	Electrochemically Driven Carbon-Based Materials as EAPs: Fundamentals and Device Configurations. , 2016, , 1-16.		0
66	Ionic and viscoelastic mechanisms of a bucky-gel actuator. Journal of Applied Physics, 2015, 118, 014502.	1.1	8
67	Self-Sensing Ionic Polymer Actuators: A Review. Actuators, 2015, 4, 17-38.	1.2	73
68	Superior performance hybrid (electrostatic double-layer and faradaic capacitor) polymer actuators incorporating noble metal oxides and carbon black. Sensors and Actuators B: Chemical, 2015, 210, 748-755.	4.0	14
69	Electroactive Shape-Fixing of Bucky-Gel Actuators. IEEE/ASME Transactions on Mechatronics, 2015, 20, 1108-1116.	3.7	7
70	Electromechanical performance of ionic polymer-metal composite under electrode constraint. Journal of Reinforced Plastics and Composites, 2015, 34, 1136-1143.	1.6	2
71	Measuring blocking force to interpret ionic mechanisms within bucky-gel actuators. Proceedings of SPIE, 2015, , .	0.8	2
72	Evaluating curvature and making picture-overlaid trajectory of motion of largely bent carbon nanotube composite bucky gel actuator using camera measurement system. Sensors and Actuators A: Physical, 2015, 235, 28-36.	2.0	2

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73	Chapter 13. Phenomenon of Spatially Growing Wave of a Snake-like Robot: Natural Generation of Bio-mimetic Swimming Motion. RSC Smart Materials, 2015, , 403-417.	0.1	0
74	Thermodynamics of nano-porous carbon materials as adsorbents and electrochemical double-layer capacitor electrodes. Tanso, 2014, 2014, 67-75.	0.1	2
75	Impact of viscoelastic properties on bucky-gel actuator performance. Journal of Intelligent Material Systems and Structures, 2014, 25, 2235-2245.	1.4	11
76	Thermodynamics in Porous Electrodes for One- and Two-Component Electrolytes. ECS Transactions, 2014, 58, 61-71.	0.3	1
77	Comparative experimental investigation on the actuation mechanisms of ionic polymerâ€“metal composites with different backbones and water contents. Journal of Applied Physics, 2014, 115, 124903.	1.1	33
78	Mechanical behaviour of bending bucky-gel actuators and its representation. Smart Materials and Structures, 2014, 23, 025031.	1.8	24
79	Underwater Soft Robots. , 2014, , 385-399.		0
80	Effects of surface roughening on the mass transport and mechanical properties of ionic polymer-metal composite. Journal of Applied Physics, 2014, 115, .	1.1	17
81	High-Performance Hybrid (Electrostatic Double-Layer and Faradaic Capacitor-Based) Polymer Actuators Incorporating Nickel Oxide and Vapor-Grown Carbon Nanofibers. Langmuir, 2014, 30, 14343-14351.	1.6	21
82	The viscoelastic effect in bending bucky-gel actuators. , 2014, , .		1
83	Microfabrication of ionic polymer actuators by selective plasma irradiation. IEEJ Transactions on Electrical and Electronic Engineering, 2014, 9, 572-574.	0.8	3
84	A simple method for obtaining large deformation of IPMC actuators utilizing copper tape. Advanced Robotics, 2014, 28, 513-521.	1.1	17
85	Microporous and Mesoporous Carbide-Derived Carbons for Strain Modification of Electromechanical Actuators. Langmuir, 2014, 30, 2583-2587.	1.6	12
86	High performance polymer actuators based on single-walled carbon nanotube gel using ionic liquid with quaternary ammonium or phosphonium cations and with electrochemical window of 6V. Sensors and Actuators B: Chemical, 2014, 193, 851-856.	4.0	31
87	High-performance polymer actuators based on poly(ethylene oxide) and single-walled carbon nanotubeâ€“ionic liquid-based gels. Sensors and Actuators B: Chemical, 2014, 202, 382-387.	4.0	16
88	Ionic electroactive polymer artificial muscles in space applications. Scientific Reports, 2014, 4, 6913.	1.6	64
89	Nanothorn electrodes for ionic polymer-metal composite artificial muscles. Scientific Reports, 2014, 4, 6176.	1.6	60
90	Development of Polymer Actuators. Journal of the Institute of Electrical Engineers of Japan, 2014, 134, 631-634.	0.0	0

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91	Development of an Amphibious Turtle-Inspired Spherical Mother Robot. Journal of Bionic Engineering, 2013, 10, 446-455.	2.7	68
92	IPMC actuator-based a movable robotic venus flytrap. , 2013, , .		7
93	Recent advances in ionic polymerâ€“metal composite actuators and their modeling and applications. Progress in Polymer Science, 2013, 38, 1037-1066.	11.8	336
94	Electrochemistry of electromechanical actuators based on carbon nanotubes and ionic liquids. , 2013, , .		2
95	Multiphysics of ionic polymerâ€“metal composite actuator. Journal of Applied Physics, 2013, 114, .	1.1	54
96	Thermodynamics in Porous Electrodes: A Monte Carlo Simulation Study. ECS Transactions, 2013, 50, 223-233.	0.3	4
97	Ionic electroactive polymer actuators based on nano-carbon electrodes. Polymer International, 2013, 62, 1263-1270.	1.6	60
98	Physical interpretation of deformation evolvement with water content of ionic polymer-metal composite actuator. Journal of Applied Physics, 2013, 114, .	1.1	31
99	Phase transition in porous electrodes. III. For the case of a two component electrolyte. Journal of Chemical Physics, 2013, 138, 234704.	1.2	13
100	Voltage induced pressure in porous electrodes. Molecular Physics, 2013, 111, 297-308.	0.8	9
101	Development of a Lobster-Inspired Underwater Microrobot. International Journal of Advanced Robotic Systems, 2013, 10, 44.	1.3	33
102	A Novel Soft Biomimetic Microrobot with Two Motion Attitudes. Sensors, 2012, 12, 16732-16758.	2.1	50
103	One Actuator and Several Sensors in One Device with only Two Connecting Wires: Mimicking Muscle/Brain Feedback. Advances in Science and Technology, 2012, 79, 16-25.	0.2	4
104	Actuation of Model Phalanges by Ion Polymer Metal Compound. Advances in Science and Technology, 2012, 79, 69-74.	0.2	0
105	Low-voltage bending actuators from carbide-derived carbon improved with gold foil. , 2012, , .		0
106	Phase transition in porous electrodes. II. Effect of asymmetry in the ion size. Journal of Chemical Physics, 2012, 136, 094701.	1.2	24
107	Modeling and position control of IPMC actuators for the underwater biomimetic microrobot. , 2012, , .		2
108	Fast-moving bimorph actuator based on electrochemically treated millimeter-long carbon nanotube electrodes and ionic liquid gel. International Journal of Smart and Nano Materials, 2012, 3, 263-274.	2.0	4

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109	Reduction of the stress-relaxation of IPMC actuators by a fluctuating input and with a cooperative control. Proceedings of SPIE, 2012, , .	0.8	6
110	Electrochemical impedance spectroscopy of the bucky-gel actuators and their electromechanical modeling. , 2012, , .		2
111	Electrochemical and electromechanical properties of high performance polymer actuators using multi-walled carbon nanotubes containing ruthenium oxide. Sensors and Actuators B: Chemical, 2012, 174, 217-224.	4.0	6
112	Superior performance of manganese oxide/multi-walled carbon nanotubes polymer actuator over ruthenium oxide/multi-walled carbon nanotubes and single-walled carbon nanotubes. Sensors and Actuators B: Chemical, 2012, 171-172, 595-601.	4.0	32
113	Improved performance of an activated multi-walled carbon nanotube polymer actuator, compared with a single-walled carbon nanotube polymer actuator. Sensors and Actuators B: Chemical, 2012, 173, 66-71.	4.0	14
114	Superior performance of a vapor grown carbon fiber polymer actuator containing ruthenium oxide over a single-walled carbon nanotube. Journal of Materials Chemistry, 2012, 22, 15104.	6.7	21
115	Development of a Venus flytrap-inspired robotic flytrap. , 2012, , .		11
116	Modeling and experiments of IPMC actuators for the position precision of underwater legged microrobots. , 2012, , .		10
117	A biomimetic underwater microrobot with multifunctional locomotion. Robotics and Autonomous Systems, 2012, 60, 1472-1483.	3.0	53
118	CNT/conductive polymer composites for low-voltage driven EAP actuators. Proceedings of SPIE, 2012, , .	0.8	9
119	Electrochemistry of Carbon Nanotubes: Reactive Processes, Dual Sensingâ€“Actuating Properties and Devices. ChemPhysChem, 2012, 13, 2108-2114.	1.0	27
120	A multi-walled carbon nanotube/polymer actuator that surpasses the performance of a single-walled carbon nanotube/polymer actuator. Carbon, 2012, 50, 311-320.	5.4	52
121	Superior performance of non-activated multi-walled carbon nanotube polymer actuator containing ruthenium oxide over a single-walled carbon nanotube. Carbon, 2012, 50, 1888-1896.	5.4	25
122	Impact of carbon nanotube additives on carbide-derived carbon-based electroactive polymer actuators. Carbon, 2012, 50, 4351-4358.	5.4	38
123	Capacitive and faradic charge components in high-speed carbon nanotube actuator. Electrochimica Acta, 2012, 60, 177-183.	2.6	42
124	Nanoporous carbide-derived carbon based actuators modified with gold foil: Prospect for fast response and low voltage applications. Sensors and Actuators B: Chemical, 2012, 161, 629-634.	4.0	46
125	High performance polymer actuators based on multi-walled carbon nanotubes that surpass the performance of those containing single-walled carbon nanotubes: Effects of ionic liquid and composition. Sensors and Actuators B: Chemical, 2012, 163, 20-28.	4.0	26
126	Actuator of double layer film composed of carbon nanotubes and polypyrroles. Sensors and Actuators B: Chemical, 2012, 161, 1010-1017.	4.0	13

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127	A NOVEL JELLYFISH- AND BUTTERFLY-INSPIRED UNDERWATER MICROROBOT WITH PECTORAL FINS. International Journal of Robotics and Automation, 2012, 27, .	0.1	19
128	A bio-inspired underwater microrobot with compact structure and multifunctional locomotion. , 2011, , .		21
129	Development of a novel underwater microrobot with proximity sensors. , 2011, , .		1
130	Phase transition in porous electrodes. Journal of Chemical Physics, 2011, 134, 154710.	1.2	44
131	Medium Effects on the Nucleation and Growth Mechanisms during the Redox Switching Dynamics of Conducting Polymers: Case of Poly(3,4-ethylenedioxythiophene). Journal of Physical Chemistry B, 2011, 115, 205-216.	1.2	17
132	The performance of fast-moving low-voltage electromechanical actuators based on single-walled carbon nanotubes and ionic liquids. Smart Materials and Structures, 2011, 20, 124008.	1.8	11
133	A novel butterfly-inspired underwater microrobot with pectoral fins. , 2011, , .		15
134	Effect of hexafluoropropylene on the performance of poly(vinylidene fluoride) polymer actuators based on single-walled carbon nanotubeâ€“ionic liquid gel. Sensors and Actuators B: Chemical, 2011, 160, 161-167.	4.0	68
135	A 4 V Operation, Flexible Braille Display Using Organic Transistors, Carbon Nanotube Actuators, and Organic Static Randomâ€Access Memory. Advanced Functional Materials, 2011, 21, 4019-4027.	7.8	128
136	Highâ€Speed Carbon Nanotube Actuators Based on an Oxidation/Reduction Reaction. Chemistry - A European Journal, 2011, 17, 10965-10971.	1.7	45
137	Flexible supercapacitor-like actuator with carbide-derived carbon electrodes. Carbon, 2011, 49, 3113-3119.	5.4	125
138	Improving the actuating response of carbon nanotube/ionic liquid composites by the addition of conductive nanoparticles. Carbon, 2011, 49, 3560-3570.	5.4	67
139	The effects of alkaline and alkaline earth metal salts on the performance of a polymer actuator based on single-wal led carbon nanotube-ionic liquid gel. Physics Procedia, 2011, 14, 73-86.	1.2	3
140	High performance polymer actuator based on carbon nanotube-ionic liquid gel: Effect of ionic liquid. Sensors and Actuators B: Chemical, 2011, 156, 539-545.	4.0	70
141	Comparative study of bending characteristics of ionic polymer actuators containing ionic liquids for modeling actuation. Journal of Applied Physics, 2011, 109, .	1.1	19
142	PWM drive of IPMC actuators with the consideration of the capacitive impedance. Proceedings of SPIE, 2011, , .	0.8	1
143	DEVELOPMENT OF A NEW JELLYFISH-TYPE UNDERWATER MICROROBOT. International Journal of Robotics and Automation, 2011, 26, .	0.1	29
144	Electrolytes in porous electrodes: Effects of the pore size and the dielectric constant of the medium. Journal of Chemical Physics, 2010, 132, 144705.	1.2	72

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145	The effects of alkaline earth metal salts on the performance of a polymer actuator based on single-walled carbon nanotube-ionic liquid gel. Sensors and Actuators B: Chemical, 2010, 150, 625-630.	4.0	9
146	Cytotoxicity test and mass spectrometry of IPMC. Electronics and Communications in Japan, 2010, 93, 1-8.	0.3	2
147	The effects of Li salts on the performance of a polymer actuator based on single-walled carbon nanotube-ionic liquid gel. Polymer, 2010, 51, 3372-3376.	1.8	18
148	Electromechanical characteristics of actuators based on carbide-derived carbon. Proceedings of SPIE, 2010, , .	0.8	1
149	Robust PID force control of IPMC actuators. , 2010, , .		7
150	Electromechanical Analysis by Means of Complex Capacitance of Bucky-Gel Actuators Based on Single-Walled Carbon Nanotubes and an Ionic Liquid. Journal of Physical Chemistry C, 2010, 114, 17982-17988.	1.5	52
151	Electrochemical Impedance Spectroscopy and Electromechanical Behavior of Bucky-Gel Actuators Containing Ionic Liquids. Journal of Physical Chemistry C, 2010, 114, 14627-14634.	1.5	48
152	A novel multifunctional underwater microrobot. , 2010, , .		26
153	Development and experiments of a novel multifunctional underwater microrobot. , 2010, , .		7
154	A novel jellyfish-like biomimetic microrobot. , 2010, , .		9
155	Mechanism of Electroactive Polymer Actuator. , 2010, , 303-313.		2
156	332 Self-oscillation of an IPMC actuator with non-alternating input by a novel electrode configuration. The Proceedings of the Materials and Processing Conference, 2010, 2010.18, _332-1_-_332-3_.	0.0	0
157	Measurement and Modeling of Electro-Chemical Properties of Ion Polymer Metal Composite by Complex Impedance Analysis. SICE Journal of Control Measurement and System Integration, 2009, 2, 373-378.	0.4	9
158	Expansion and contraction of polymer electrodes under applied voltage. Journal of Applied Physics, 2009, 105, .	1.1	26
159	Experiments and characteristics analysis of a bio-inspired underwater microrobot. , 2009, , .		18
160	Highly Conductive Sheets from Millimeterâ€Long Singleâ€Walled Carbon Nanotubes and Ionic Liquids: Application to Fastâ€Moving, Lowâ€Voltage Electromechanical Actuators Operable in Air. Advanced Materials, 2009, 21, 1582-1585.	11.1	230
161	Electromechanical behavior of fully plastic actuators based on bucky gel containing various internal ionic liquids. Electrochimica Acta, 2009, 54, 1762-1768.	2.6	175
162	Actuator properties of the complexes composed by carbon nanotube and ionic liquid: The effects of additives. Sensors and Actuators B: Chemical, 2009, 141, 179-186.	4.0	146

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163	Electromechanical behavior of a fully plastic actuator based on dispersed nano-carbon/ionic-liquid-gel electrodes. Carbon, 2009, 47, 1373-1380.	5.4	81
164	Electromechanical polymer actuators using nano-sized carbon. Tanso, 2009, 2009, 239-244.	0.1	0
165	High performance fully plastic actuator based on ionic-liquid-based bucky gel. Electrochimica Acta, 2008, 53, 5555-5562.	2.6	208
166	Formation of Patterned Electrode in Ionic Polymer-Metal Composite using Dry Film Photoresist. IEEJ Transactions on Electrical and Electronic Engineering, 2008, 3, 452-454.	0.8	7
167	Fast fully plastic actuator based on ionic-liquid-based bucky gel. Proceedings of SPIE, 2008, , .	0.8	4
168	IPMC actuator-based an underwater microrobot with 8 legs. , 2008, , .		20
169	Integrated Design of an Ionic Polymerâ€“Metal Composite Actuator/Sensor. Advanced Robotics, 2008, 22, 913-928.	1.1	15
170	Frequency response characteristics of IPMC sensors with current/voltage measurements. Proceedings of SPIE, 2008, , .	0.8	5
171	Frequency response of anisotropic ionic polymer metal composites (IPMC) transducers. Proceedings of SPIE, 2008, , .	0.8	5
172	Monte Carlo Simulation of Electroactive Polymer Actuators. Advances in Science and Technology, 2008, 61, 101-102.	0.2	0
173	State space modeling of ionic polymer-metal composite actuators based on electrostress diffusion coupling theory. , 2008, , .		4
174	IPMC actuator-sensor based a biomimetic underwater microrobot with 8 Legs. , 2008, , .		11
175	Formation of Patterned Electrode on Solid Polymer Electrolyte using Photolithography Technique. Journal of the Japan Society for Precision Engineering, 2008, 74, 719-723.	0.0	0
176	Low Melting and Electrochemically Stable Ionic Liquids Based on Asymmetric Fluorosulfonyl(trifluoromethylsulfonyl)amide. Chemistry Letters, 2008, 37, 1020-1021.	0.7	65
177	Cytotoxicity Test and Mass Spectrometry of IPMC. IEEJ Transactions on Electronics, Information and Systems, 2008, 128, 1029-1035.	0.1	0
178	Sensor Property of a Novel EAP Device with Ionic-liquid-based Bucky Gel. , 2007, , .		17
179	Doping effects on robotic systems with ionic polymerâ€“metal composite actuators. Advanced Robotics, 2007, 21, 65-85.	1.1	13
180	Monte Carlo simulation of electrolytes in the constant voltage ensemble. Journal of Chemical Physics, 2007, 126, 214704.	1.2	55

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181	Sensor-actuator coupled device for active tracheal tube using solid polymer electrolyte membrane. , 2007, , .		1
182	On a distributed parameter model for electrical impedance of ionic polymer. , 2007, 6524, 318.		11
183	Control of Combined IPMC Actuator with 2 Variously Doped Films : Experimental Evaluation. Control Applications (CCA), Proceedings of the IEEE International Conference on, 2007, , .	0.0	1
184	Monte Carlo Simulation of Porous Electrodes in the Constant Voltage Ensemble. Journal of Physical Chemistry C, 2007, 111, 15903-15909.	1.5	53
185	Integrated Actuator-Sensor System on Patterned IPMC Film : Consideration of Electoric Interference. , 2007, , .		19
186	Experimental verifications on control and sensing of bucky gel actuator/sensor. , 2007, , .		2
187	Sheet-Type Braille Displays by Integrating Organic Field-Effect Transistors and Polymeric Actuators. IEEE Transactions on Electron Devices, 2007, 54, 202-209.	1.6	149
188	Development of an underwater biomimetic microrobot with compact structure and flexible locomotion. Microsystem Technologies, 2007, 13, 883-890.	1.2	11
189	Development and Analysis an Underwater Boomimetic Microrobot. , 2006, , .		2
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