Ken Mukai

List of Publications by Year
in descending order

39 papers	1,662 citations	331670 21 h-index	330143 37 g-index
40 all docs	40 docs citations	40 times ranked	1126 citing authors

#	Article	IF	Citations
1	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.	21.0	230
2	High performance fully plastic actuator based on ionic-liquid-based bucky gel. Electrochimica Acta, 2008, 53, 5555-5562.	5.2	208
3	Electromechanical behavior of fully plastic actuators based on bucky gel containing various internal ionic liquids. Electrochimica Acta, 2009, 54, 1762-1768.	5.2	175
4	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.	7.8	146
5	Electromechanical behavior of a fully plastic actuator based on dispersed nano-carbon/ionic-liquid-gel electrodes. Carbon, 2009, 47, 1373-1380.	10.3	81
6	High performance polymer actuator based on carbon nanotube-ionic liquid gel: Effect of ionic liquid. Sensors and Actuators B: Chemical, 2011, 156, 539-545.	7.8	70
7	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.	7.8	68
8	Improving the actuating response of carbon nanotube/ionic liquid composites by the addition of conductive nanoparticles. Carbon, 2011, 49, 3560-3570.	10.3	67
9	Ionic electroactive polymer actuators based on nano-carbon electrodes. Polymer International, 2013, 62, 1263-1270.	3.1	60
10	A multi-walled carbon nanotube/polymer actuator that surpasses the performance of a single-walled carbon nanotube/polymer actuator. Carbon, 2012, 50, 311-320.	10.3	52
11	Electrochemical Impedance Spectroscopy and Electromechanical Behavior of Bucky-Gel Actuators Containing Ionic Liquids. Journal of Physical Chemistry C, 2010, 114, 14627-14634.	3.1	48
12	Highâ€Speed Carbon Nanotube Actuators Based on an Oxidation/Reduction Reaction. Chemistry - A European Journal, 2011, 17, 10965-10971.	3.3	45
13	Capacitive and faradic charge components in high-speed carbon nanotube actuator. Electrochimica Acta, 2012, 60, 177-183.	5.2	42
14	Wet spinning of continuous polymer-free carbon-nanotube fibers with high electrical conductivity and strength. Applied Physics Express, 2016, 9, 055101.	2.4	33
15	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.	7.8	32
16	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.	3.1	27
17	Expansion and contraction of polymer electrodes under applied voltage. Journal of Applied Physics, 2009, 105, .	2.5	26
18	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.	7.8	26

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19	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.	10.3	25
20	Mechanical behaviour of bending bucky-gel actuators and its representation. Smart Materials and Structures, 2014, 23, 025031.	3.5	24
21	Nanotube length and density dependences of electrical and mechanical properties of carbon nanotube fibres made by wet spinning. Carbon, 2019, 152, 1-6.	10.3	23
22	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
23	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.	3.8	18
24	Effect of surfactants and dispersion methods on properties of single-walled carbon nanotube fibers formed by wet-spinning. Applied Physics Express, 2017, 10, 055101.	2.4	15
25	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.	7.8	14
26	Actuator of double layer film composed of carbon nanotubes and polypyrroles. Sensors and Actuators B: Chemical, 2012, 161, 1010-1017.	7.8	13
27	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.	3.5	11
28	Impact of viscoelastic properties on bucky-gel actuator performance. Journal of Intelligent Material Systems and Structures, 2014, 25, 2235-2245.	2.5	11
29	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.	7.8	9
30	Electroactive Shape-Fixing of Bucky-Gel Actuators. IEEE/ASME Transactions on Mechatronics, 2015, 20, 1108-1116.	5.8	7
31	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.	7.8	6
32	Fast fully plastic actuator based on ionic-liquid-based bucky gel. Proceedings of SPIE, 2008, , .	0.8	4
33	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.	4.2	4
34	Actuation and blocking force of stacked nanocarbon polymer actuators. International Journal of Smart and Nano Materials, 2018, 9, 184-198.	4.2	4
35	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
36	Electrochemical impedance spectroscopy of the bucky-gel actuators and their electromechanical modeling. , 2012, , .		2

#	Article	IF	Citations
37	Electrochemistry of electromechanical actuators based on carbon nanotubes and ionic liquids. , 2013, , .		2
38	The viscoelastic effect in bending bucky-gel actuators. , 2014, , .		1
39	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.	1.5	1