

Longfei Chang

List of Publications by Year in descending order

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47
papers

1,171
citations

361045

20
h-index

395343

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docs citations

47
times ranked

989
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrically and Sunlight-Driven Actuator with Versatile Biomimetic Motions Based on Rolled Carbon Nanotube Bilayer Composite. <i>Advanced Functional Materials</i> , 2017, 27, 1704388.	7.8	211
2	An Autonomous Soft Actuator with Light-Driven Self-Sustained Wavelike Oscillation for Phototactic Self-Locomotion and Power Generation. <i>Advanced Functional Materials</i> , 2020, 30, 1908842.	7.8	100
3	Light-Driven Self-Oscillating Actuators with Phototactic Locomotion Based on Black Phosphorus Heterostructure. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 20511-20517.	7.2	82
4	Multiphysics of ionic polymer-metal composite actuator. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	54
5	Temperature dependence of the dielectric constant of acrylic dielectric elastomer. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 110, 511-515.	1.1	52
6	Manufacturing process and electrode properties of palladium-electroded ionic polymer-metal composite. <i>Smart Materials and Structures</i> , 2012, 21, 065018.	1.8	49
7	A powerful dual-responsive soft actuator and photo-to-electric generator based on graphene micro-gasbags for bioinspired applications. <i>Journal of Materials Chemistry B</i> , 2018, 6, 5031-5038.	2.9	42
8	Water content criterion for relaxation deformation of Nafion based ionic polymer metal composites doped with alkali cations. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	36
9	Influence of Ambient Humidity on the Voltage Response of Ionic Polymer-Metal Composite Sensor. <i>Journal of Physical Chemistry B</i> , 2016, 120, 3215-3225.	1.2	34
10	Comparative experimental investigation on the actuation mechanisms of ionic polymer-metal composites with different backbones and water contents. <i>Journal of Applied Physics</i> , 2014, 115, 124903.	1.1	33
11	Dynamic model of ion and water transport in ionic polymer-metal composites. <i>AIP Advances</i> , 2011, 1, 040702.	0.6	31
12	Physical interpretation of deformation evolution with water content of ionic polymer-metal composite actuator. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	31
13	Multi-physical model of cation and water transport in ionic polymer-metal composite sensors. <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	31
14	Preparation and characterization of water-soluble carbon nanotube reinforced Nafion membranes and so-based ionic polymer metal composite actuators. <i>Smart Materials and Structures</i> , 2016, 25, 095006.	1.8	31
15	Effects of preparation steps on the physical parameters and electromechanical properties of IPMC actuators. <i>Smart Materials and Structures</i> , 2014, 23, 125015.	1.8	29
16	Effects of cation on electrical responses of ionic polymer-metal composite sensors at various ambient humidities. <i>Journal of Applied Physics</i> , 2016, 120, .	1.1	25
17	Effects of surface roughening of Nafion 117 on the mechanical and physicochemical properties of ionic polymer-metal composite (IPMC) actuators. <i>Smart Materials and Structures</i> , 2016, 25, 085012.	1.8	25
18	Graphene-Based Bimorph Actuators with Dual-Response and Large-Deformation by a Simple Method. <i>Macromolecular Materials and Engineering</i> , 2019, 304, 1800688.	1.7	22

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19	Influence of additives on the properties of casting nafion membranes and SO ₄ -based ionic polymer-metal composite actuators. <i>Polymer Engineering and Science</i> , 2014, 54, 818-830.	1.5	21
20	An easily fabricated high performance ionic polymer based sensor network. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	20
21	Progress of low-frequency sound absorption research utilizing intelligent materials and acoustic metamaterials. <i>RSC Advances</i> , 2021, 11, 37784-37800.	1.7	20
22	Experimental investigation on the physical parameters of ionic polymer metal composites sensors for humidity perception. <i>Sensors and Actuators B: Chemical</i> , 2021, 345, 130421.	4.0	18
23	NMR study on mechanisms of ionic polymer-metal composites deformation with water content. <i>Europhysics Letters</i> , 2011, 96, 27005.	0.7	17
24	Effects of surface roughening on the mass transport and mechanical properties of ionic polymer-metal composite. <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	17
25	The effect of ambient humidity on the electrical response of ion-migration-based polymer sensor with various cations. <i>Smart Materials and Structures</i> , 2016, 25, 055024.	1.8	17
26	Application-oriented simplification of actuation mechanism and physical model for ionic polymer-metal composites. <i>Journal of Applied Physics</i> , 2016, 120, .	1.1	15
27	Ionic polymer with single-layered electrodes: a novel strategy for ionic actuator design. <i>Smart Materials and Structures</i> , 2018, 27, 105046.	1.8	13
28	High-performance ionic polymer-metal composite actuators fabricated with microneedle roughening. <i>Smart Materials and Structures</i> , 2019, 28, 015007.	1.8	13
29	Soft Actuators Based On Carbon Nanomaterials. <i>ChemPlusChem</i> , 2022, 87, e202100437.	1.3	13
30	Aided manufacturing techniques and applications in optics and manipulation for ionic polymer-metal composites as soft sensors and actuators. <i>Journal of Polymer Engineering</i> , 2015, 35, 611-626.	0.6	12
31	Rough interface in IPMC: modeling and its influence analysis. <i>Smart Materials and Structures</i> , 2018, 27, 075055.	1.8	12
32	Performance Enhancement of Ionic Polymer-Metal Composite Actuators with Polyethylene Oxide. <i>Polymers</i> , 2022, 14, 80.	2.0	9
33	Effect of temperature on the electromechanical actuation of viscoelastic dielectric elastomers. <i>Europhysics Letters</i> , 2015, 112, 27006.	0.7	6
34	Influence of fabrication process steps on Pd-IPMC electrode morphologies and mechano-electrical properties. <i>Proceedings of SPIE</i> , 2011, , .	0.8	5
35	A novel strategy to enhance the generating power of ionic polymer metal composites through magnetoelectricity. <i>Smart Materials and Structures</i> , 2021, 30, 065013.	1.8	4
36	Preparation and characterization of sulfonated carbon nanotube/Nafion IPMC actuators. , 2016, , .		3

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37	Light-Driven Self-Oscillating Actuators with Phototactic Locomotion Based on Black Phosphorus Heterostructure. <i>Angewandte Chemie</i> , 2021, 133, 20674-20680.	1.6	3
38	Hierarchical Structure Fabrication of IPMC Strain Sensor With High Sensitivity. <i>Frontiers in Materials</i> , 2021, 8, .	1.2	3
39	Bistable sound insulator with an abrupt stiffness shift using magnetic-coupled dielectric elastomer actuator. <i>Smart Materials and Structures</i> , 2022, 31, 065012.	1.8	3
40	A structure model for Ionic Polymer-Metal Composite (IPMC). , 2012, , .		2
41	Electromechanical performance of ionic polymer-metal composite under electrode constraint. <i>Journal of Reinforced Plastics and Composites</i> , 2015, 34, 1136-1143.	1.6	2
42	Effect of doping polyethylene oxide on the properties of Nafion-IPMC actuators. <i>Functional Materials Letters</i> , 2022, 15, .	0.7	2
43	Multi-physical modeling and fabrication of high-performance IPMC actuators with serrated interface. <i>Smart Materials and Structures</i> , 2022, 31, 095023.	1.8	2
44	A multi-physical model of actuation response in dielectric gels. <i>Smart Materials and Structures</i> , 2016, 25, 125032.	1.8	1
45	Mass and charge transport in IPMC actuators with fractal interfaces. <i>Proceedings of SPIE</i> , 2016, , .	0.8	0
46	IPMC Actuation Mechanisms and Multi-physical Modeling. , 2019, , 455-502.		0
47	Prolonged Working Time in Air of Ionic Polymer-Metal Composite Actuators with Polyethylene Oxide [*] . , 2021, , .		0