Yanjie Wang

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/2622026/publications.pdf

Version: 2024-02-01

66	869	394286	526166
papers	citations	19	27
		h-index	g-index

67	67	67	531
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ionic Flexible Sensors: Mechanisms, Materials, Structures, and Applications. Advanced Functional Materials, 2022, 32, .	7.8	79
2	Effect of Dehydration on the Mechanical and Physicochemical Properties of Gold- and Palladium -Ionomeric Polymer-Metal Composite (IPMC) Actuators. Electrochimica Acta, 2014, 129, 450-458.	2.6	68
3	Formation and Characterization of Dendritic Interfacial Electrodes inside an Ionomer. ACS Applied Materials & Interfaces, 2017, 9, 30258-30262.	4.0	41
4	Modeling of the dynamic characteristic of viscoelastic dielectric elastomer actuators subject to different conditions of mechanical load. Journal of Applied Physics, 2015, 117, .	1.1	40
5	Viscoelastic creep elimination in dielectric elastomer actuation by preprogrammed voltage. Applied Physics Letters, 2014, 105, .	1.5	36
6	Water content criterion for relaxation deformation of Nafion based ionic polymer metal composites doped with alkali cations. Applied Physics Letters, 2014, 105, .	1.5	36
7	A Compact Review of IPMC as Soft Actuator and Sensor: Current Trends, Challenges, and Potential Solutions From Our Recent Work. Frontiers in Robotics and AI, 2019, 6, 129.	2.0	34
8	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
9	Printing single-walled carbon nanotube/Nafion composites by direct writing techniques. Materials and Design, 2018, 155, 125-133.	3.3	33
10	Preparation and characterization of water-soluble carbon nanotube reinforced Nafion membranes and so-based ionic polymer metal composite actuators. Smart Materials and Structures, 2016, 25, 095006.	1.8	31
11	Effects of preparation steps on the physical parameters and electromechanical properties of IPMC actuators. Smart Materials and Structures, 2014, 23, 125015.	1.8	29
12	Effects of surface roughening of Nafion 117 on the mechanical and physicochemical properties of ionic polymerâ€“metal composite (IPMC) actuators. Smart Materials and Structures, 2016, 25, 085012.	1.8	25
13	Superior cycle life of TiZrFeMnCrV high entropy alloy for hydrogen storage. Scripta Materialia, 2022, 212, 114548.	2.6	24
14	Thermal and strain-stiffening effects on the electromechanical breakdown strength of dielectric elastomers. Applied Physics Letters, 2015, 107, .	1.5	23
15	Influence of additives on the properties of casting nafion membranes and SOâ€based ionic polymerâ€“Metal composite actuators. Polymer Engineering and Science, 2014, 54, 818-830.	1.5	21
16	The Effects of Dimensions on the Deformation Sensing Performance of Ionic Polymer-Metal Composites. Sensors, 2019, 19, 2104.	2.1	21
17	Underwater Source Localization Using an Artificial Lateral Line System With Pressure and Flow Velocity Sensor Fusion. IEEE/ASME Transactions on Mechatronics, 2022, 27, 245-255.	3.7	21
18	An easily fabricated high performance ionic polymer based sensor network. Applied Physics Letters, 2016, 109, .	1.5	20

#	Article	IF	Citations
19	Tunable actuation behavior of ionic polymer metal composite utilizing carboxylated carbon nanotube-doped Nafion matrix. RSC Advances, 2018, 8, 3090-3094.	1.7	20
20	Inflatable Particle-Jammed Robotic Gripper Based on Integration of Positive Pressure and Partial Filling. Soft Robotics, 2022, 9, 309-323.	4.6	19
21	Experimental investigation on the physical parameters of ionic polymer metal composites sensors for humidity perception. Sensors and Actuators B: Chemical, 2021, 345, 130421.	4.0	18
22	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
23	Application-oriented simplification of actuation mechanism and physical model for ionic polymer-metal composites. Journal of Applied Physics, 2016, 120, .	1.1	15
24	Controllable and durable ionic electroactive polymer actuator based on nanoporous carbon nanotube film electrode. Smart Materials and Structures, 2019, 28, 085032.	1.8	15
25	High-performance ionic polymerâ€“metal composite actuators fabricated with microneedle roughening. Smart Materials and Structures, 2019, 28, 015007.	1.8	13
26	Aided manufacturing techniques and applications in optics and manipulation for ionic polymer-metal composites as soft sensors and actuators. Journal of Polymer Engineering, 2015, 35, 611-626.	0.6	12
27	Rough interface in IPMC: modeling and its influence analysis. Smart Materials and Structures, 2018, 27, 075055.	1.8	12
28	Improved manufacturing technology for producing porous Nafion for high-performance ionic polymerâ€“metal composite actuators. Smart Materials and Structures, 2016, 25, 075043.	1.8	10
29	Rapid preparation of a Nafion/Ag NW composite film and its humidity sensing effect. RSC Advances, 2020, 10, 27447-27455.	1.7	9
30	Performance Enhancement of Ionic Polymer-Metal Composite Actuators with Polyethylene Oxide. Polymers, 2022, 14, 80.	2.0	9
31	A General Visco-Hyperelastic Model for Dielectric Elastomers and Its Efficient Simulation Based on Complex Frequency Representation. International Journal of Applied Mechanics, 2015, 07, 1550011.	1.3	8
32	A moisture and electric coupling stimulated ionic polymer-metal composite actuator with controllable deformation behavior. Smart Materials and Structures, 2018, 27, 02LT01.	1.8	8
33	Experimental investigation on electromechanical deformation of dielectric elastomers under different temperatures. Theoretical and Applied Mechanics Letters, 2015, 5, 155-159.	1.3	7
34	Active Tube-Shaped Actuator with Embedded Square Rod-Shaped Ionic Polymer-Metal Composites for Robotic-Assisted Manipulation. Applied Bionics and Biomechanics, 2018, 2018, 1-12.	0.5	7
35	Ionic Polymer Actuators: Principle, Fabrication and Applications. , 0, , .		6
36	Analysis on the Impact Factors for the Pulling Force of the McKibben Pneumatic Artificial Muscle by a FEM Model. Journal of Robotics, 2020, 2020, 1-11.	0.6	6

#	Article	IF	Citations
37	The effects of contact area on pressure sensing of ionic polymer metal composite sensor with a soft substrate. Smart Materials and Structures, 2022, 31, 065013.	1.8	6
38	Design and fabrication of an IPMC-embedded tube for minimally invasive surgery applications. Proceedings of SPIE, 2014, , .	0.8	5
39	A novel strategy to enhance the generating power of ionic polymer metal composites through magnetoelectricity. Smart Materials and Structures, 2021, 30, 065013.	1.8	4
40	Preparation and characterization of sulfonated carbon nanotube/Nafion IPMC actuators. , 2016, , .		3
41	Modeling the Damage and Self-healing Behaviors of Plasticized PVC Gels. Acta Mechanica Solida Sinica, 2021, 34, 466-476.	1.0	3
42	Hierarchical Structure Fabrication of IPMC Strain Sensor With High Sensitivity. Frontiers in Materials, 2021, 8, .	1.2	3
43	Design and optimization of small-sized actuators for driving optical lens with different shapes based on IPMCs. Proceedings of SPIE, 2012, , .	0.8	2
44	Manufacturing process for patterned IPMC actuator with millimeter thickness. , 2013, , .		2
45	Electromechanical performance of ionic polymer-metal composite under electrode constraint. Journal of Reinforced Plastics and Composites, 2015, 34, 1136-1143.	1.6	2
46	Design and Fabrication of an IPMC Actuated Micro-Pump With Inner Petal-Shaped Diaphragm. , 2018, , .		2
47	Direct Writing Corrugated PVC Gel Artificial Muscle via Multi-Material Printing Processes. Polymers, 2021, 13, 2734.	2.0	2
48	Manufacturing a soft actuator/sensor integrated structure via multi-material direct writing processes technology. Polymer Testing, 2021, 104, 107382.	2.3	2
49	Effect of doping polyethylene oxide on the properties of Nafion-IPMC actuators. Functional Materials Letters, 2022, 15, .	0.7	2
50	Enhanced electromechanical response of Ionic Polymer-Metal Composite (IPMC) actuators by various Nafion roughening levels. , 2016, , .		1
51	Stimuli-Responsive Smart Polymers and Structures: Characteristics and Applications. International Journal of Polymer Science, 2018, 2018, 1-2.	1.2	1
52	Reconfigurable Design and Structure Optimization of SCARA. Lecture Notes in Computer Science, 2019, , 672-679.	1.0	1
53	Electrochromic iontronic devices based on nanoscale cell membrane-inspired hydrated ion channels in Nafion solid polyelectrolyte. Europhysics Letters, 2019, 128, 68001.	0.7	1
54	Fabrication and characterization of IPMC actuated wing for flapping motion of butterfly. , 2018, , .		1

#	Article	IF	Citations
55	Investigation on static and dynamic performance of a hinge configuration with integrated dielectric elastomers. Journal of Applied Polymer Science, 2015, 132, .	1.3	0
56	Comparison of plasma treatment and sandblast preprocessing for IPMC actuator. , 2014, , .		0
57	A multi-segment soft actuator for biomedical applications based on IPMCs. , 2015, , .		0
58	Large deformation ionic polymer-metal composites actuators based on porous Nafion membranes. , 2016, , .		0
59	The Effects of Casting and Blending on Properties of Ionomer and the Electromechanical Responses of Ionic Polymer Metal Composite Actuators. , 0, , .		0
60	Design and Motion Analysis of a Pneumatic Soft Active Structure to Imitate Neck Muscle. Lecture Notes in Computer Science, 2021, , 539-551.	1.0	0
61	Moisture and electric coupling stimulated ionic polymer actuator with superior deformation behavior. , 2018, , .		0
62	Sensing Properties and Physical Model of Ionic Polymer. , 2019, , 503-545.		0
63	Structural Design and Position Tracking of the Reconfigurable SCARA Robot by the Pre-Filter AFE PID Controller. Applied Sciences (Switzerland), 2022, 12, 1626.	1.3	0
64	Prolonged Working Time in Air of Ionic Polymer-Metal Composite Actuators with Polyethylene Oxide[*]. , 2021, , .		0
65	Adjustable electro-active performances of IPMCs based on carboxylated carbon nanotube/Nafion. , 2021, , .		0
66	Modeling analysis of ionic polymer-metal composites sensors with various sizes. , 2021, , .		0