Youngsu Cha

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7295135/publications.pdf

Version: 2024-02-01

		430754	414303
67	1,149	18	32
papers	citations	h-index	g-index

67	67	67	944
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mechanics and electrochemistry of ionic polymer metal composites. Journal of the Mechanics and Physics of Solids, 2014, 71, 156-178.	2.3	86
2	Energy harvesting from a piezoelectric biomimetic fish tail. Renewable Energy, 2016, 86, 449-458.	4.3	86
3	A physics-based model of the electrical impedance of ionic polymer metal composites. Journal of Applied Physics, 2012, 111, .	1.1	77
4	Pneumatic actuator and flexible piezoelectric sensor for soft virtual reality glove system. Scientific Reports, 2019, 9, 8988.	1.6	75
5	Electrohydraulic Actuator for a Soft Gripper. Soft Robotics, 2020, 7, 68-75.	4.6	68
6	Energy harvesting from underwater base excitation of a piezoelectric composite beam. Smart Materials and Structures, 2013, 22, 115026.	1.8	52
7	Energy harvesting from the tail beating of a carangiform swimmer using ionic polymerâ€“metal composites. Bioinspiration and Biomimetics, 2013, 8, 036003.	1.5	50
8	Soft Pneumatic Gripper With a Tendon-Driven Soft Origami Pump. Frontiers in Bioengineering and Biotechnology, 2020, 8, 461.	2.0	48
9	Flexible Piezoelectric Energy Harvesting from Mouse Click Motions. Sensors, 2016, 16, 1045.	2.1	44
10	Humanâ€“computer interface glove using flexible piezoelectric sensors. Smart Materials and Structures, 2017, 26, 057002.	1.8	39
11	Patient Posture Monitoring System Based on Flexible Sensors. Sensors, 2017, 17, 584.	2.1	38
12	Flexible Piezoelectric Sensor-Based Gait Recognition. Sensors, 2018, 18, 468.	2.1	36
13	Electrical impedance controls mechanical sensing in ionic polymer metal composites. Physical Review E, 2013, 88, 062603.	0.8	30
14	Bias-dependent model of the electrical impedance of ionic polymer-metal composites. Physical Review E, 2013, 87, 022403.	0.8	29
15	Soft mobile robot inspired by animal-like running motion. Scientific Reports, 2019, 9, 14700.	1.6	29
16	Thermal display glove for interacting with virtual reality. Scientific Reports, 2020, 10, 11403.	1.6	27
17	Energy harvesting from fluid-induced buckling of ionic polymer metal composites. Journal of Intelligent Material Systems and Structures, 2014, 25, 1496-1510.	1.4	26
18	Energy harvesting from a piezoelectric slipper during walking. Journal of Intelligent Material Systems and Structures, 2018, 29, 1456-1463.	1.4	21

#	Article	IF	Citations
19	Energy harvesting from underwater vibration of an annular ionic polymer metal composite. Meccanica, 2015, 50, 2675-2690.	1.2	19
20	Energy harvesting from walking motion of a humanoid robot using a piezoelectric composite. Smart Materials and Structures, 2016, 25, 10LT01.	1.8	16
21	Origami Pump Actuator Based Pneumatic Quadruped Robot (OPARO). IEEE Access, 2021, 9, 41010-41018.	2.6	15
22	Energy harvesting using flexible piezoelectric materials from human walking motion: Theoretical analysis. Journal of Intelligent Material Systems and Structures, 2017, 28, 3006-3015.	1.4	14
23	Influence of temperature on the impedance of ionic polymer metal composites. Materials Letters, 2014, 133, 179-182.	1.3	12
24	Torsion sensing based on patterned piezoelectric beams. Smart Materials and Structures, 2018, 27, 035010.	1.8	11
25	Flexible Shear and Normal Force Sensor Using Only One Layer of Polyvinylidene Fluoride Film. Applied Sciences (Switzerland), 2019, 9, 4339.	1.3	11
26	Estimation of Hand Motion from Piezoelectric Soft Sensor Using Deep Recurrent Network. Applied Sciences (Switzerland), 2020, 10, 2194.	1.3	11
27	Fabrication and buckling analysis of ionic polymer metal composite pipes. Smart Materials and Structures, 2013, 22, 105032.	1.8	10
28	Parameter Study on Piezoelectric Length to Harvesting Power in Torsional Loads. IEEE/ASME Transactions on Mechatronics, 2019, 24, 1220-1227.	3.7	10
29	Torsion Sensing on a Cylinder Using a Flexible Piezoelectric Wrist Band. IEEE/ASME Transactions on Mechatronics, 2020, 25, 460-467.	3.7	10
30	Fe3O4â€“Silicone Mixture as Flexible Actuator. Materials, 2018, 11, 753.	1.3	9
31	Rotary Motion and Manipulation Using Electro-Hydraulic Actuator With Asymmetric Electrodes. IEEE Robotics and Automation Letters, 2020, 5, 3945-3951.	3.3	9
32	Solvation-Driven Electrochemical Actuation. Physical Review Letters, 2021, 126, 046001.	2.9	9
33	Tendon-Inspired Piezoelectric Sensor for Biometric Application. IEEE/ASME Transactions on Mechatronics, 2021, 26, 2538-2547.	3.7	9
34	Matching the impedance of ionic polymer metal composites for energy harvesting. Smart Materials and Structures, 2014, 23, 127002.	1.8	8
35	Flexible piezoelectric sensor array for touch sensing of robot hand. , 2019, , .		8
36	Voltage attenuation along the electrodes of ionic polymer metal composites. Journal of Intelligent Material Systems and Structures, 2016, 27, 2426-2430.	1.4	7

#	Article	IF	Citations
37	A V-Shaped Actuator Utilizing Electrostatic Force. Actuators, 2018, 7, 30.	1.2	7
38	Multidirectional Cylindrical Piezoelectric Force Sensor: Design and Experimental Validation. Sensors, 2020, 20, 4840.	2.1	7
39	Integrating mechatronics in project-based learning of Malaysian high school students and teachers. International Journal of Mechanical Engineering Education, 2017, 45, 297-320.	0.6	7
40	Hemispherical Cell-Inspired Soft Actuator. Frontiers in Bioengineering and Biotechnology, 2020, 8, 20.	2.0	6
41	Soft electromagnetic actuator for assembly robots. Smart Materials and Structures, 2020, 29, 067001.	1.8	6
42	Thin Piezoelectric Mobile Robot Using Curved Tail Oscillation. IEEE Access, 2021, 9, 145477-145485.	2.6	6
43	Contactless actuation of perfluorinated ionomer membranes in salt solution: an experimental investigation. Scientific Reports, 2019, 9, 11989.	1.6	5
44	Cross-shaped piezoelectric beam for torsion sensing. Smart Materials and Structures, 2020, 29, 015023.	1.8	5
45	Thermal Feedback System From Robot Hand for Telepresence. IEEE Access, 2021, 9, 827-835.	2.6	5
46	Automatic page-turning mechanism with near-field electroadhesive force for linearly correctable imaging. , 2017, , .		4
47	Energy harvesting from flexible piezoelectric ring. Smart Materials and Structures, 2019, 28, 084007.	1.8	4
48	Piezoelectric Sensor with a Helical Structure on the Thread Core. Applied Sciences (Switzerland), 2020, 10, 5073.	1.3	4
49	Object classification based on piezoelectric actuator-sensor pair on robot hand using neural network. Smart Materials and Structures, 2020, 29, 105020.	1.8	4
50	Chopstick Robot Driven by X-shaped Soft Actuator. Actuators, 2020, 9, 32.	1.2	3
51	Searching for clues about Maxwell stress in the back-relaxation of ionic polymer-metal composites. , 2019, , .		3
52	Electrohydraulic actuator based on multiple pouch modules for bending and twisting. Sensors and Actuators A: Physical, 2022, 337, 113450.	2.0	3
53	Flexible printed circuit board actuators. Smart Materials and Structures, 2017, 26, 125019.	1.8	2
54	Gait analysis system based on slippers with flexible piezoelectric sensors. , 2018, , .		2

#	Article	IF	Citations
55	Double-layered electrohydraulic actuator for bi-directional bending motion of soft gripper. , 2021, , .		2
56	Wearable Multifunctional Additive Hand System for Enhancing the Workspace and Grasping Capability of the Human Hand. IEEE Access, 2022, 10, 28094-28108.	2.6	2
57	A Soft Actuation System with Origami Pump for Maximizing Haptic Feedback. The Journal of Korea Robotics Society, 2021, 16, 29-34.	0.2	1
58	Modeling Actuation of Ionomer Cilia in Salt Solution Under an External Electric Field. ASME Letters in Dynamic Systems and Control, 2021, 1, .	0.4	1
59	Energy harvesting from flexion motion using a flexible piezoelectric ring. Sensors and Actuators A: Physical, 2022, 343, 113664.	2.0	1
60	Energy harvesting from mouse click of robot finger using piezoelectrics. Proceedings of SPIE, 2017, , .	0.8	0
61	Seesaw type actuator using balancing between electrostatic force, elasticity, and gravity. AIP Advances, 2018, 8, 075029.	0.6	0
62	Tri-Iron Tetra-Oxide and Silicone Composite Beam Actuator. , 2018, , .		0
63	Seesaw Type Actuator for Haptic Application. Lecture Notes in Electrical Engineering, 2019, , 169-172.	0.3	0
64	Fiber-based Piezoelectric Sensors in Woven Structure. , 2020, , .		0
65	Virtual thermal feedback system using thermal conductivity. , 2021, , .		0
66	Energy harvesting from torsions of patterned piezoelectrics. , 2018, , .		0
67	Ring energy harvester using cylinder shape change. , 2019, , .		0