Gih-Keong Lau

List of Publications by Year
in descending order

53	1,202	361296	377752
papers	citations	20 h-index	34 g-index

56	56	56	1156
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dielectric elastomer fingers for versatile grasping and nimble pinching. Applied Physics Letters, 2017, 110, .	1.5	99
2	Electrothermal Microgripper With Large Jaw Displacement and Integrated Force Sensors. Journal of Microelectromechanical Systems, 2008, 17, 1546-1555.	1.7	88
3	Polymeric Thermal Microactuator With Embedded Silicon Skeleton: Part IIâ€"Fabrication, Characterization, and Application for 2-DOF Microgripper. Journal of Microelectromechanical Systems, 2008, 17, 823-831.	1.7	87
4	Polymeric Thermal Microactuator With Embedded Silicon Skeleton: Part Iâ€"Design and Analysis. Journal of Microelectromechanical Systems, 2008, 17, 809-822.	1.7	75
5	Dipteran-Insect-Inspired Thoracic Mechanism With Nonlinear Stiffness to Save Inertial Power of Flapping-Wing Flight. IEEE Transactions on Robotics, 2014, 30, 1187-1197.	7.3	72
6	Lightweight mechanical amplifiers for rolled dielectric elastomer actuators and their integration with bio-inspired wing flappers. Smart Materials and Structures, 2014, 23, 025021.	1.8	68
7	Ink-Jet Printing of Micro-Electro-Mechanical Systems (MEMS). Micromachines, 2017, 8, 194.	1.4	62
8	Electrically tunable and broader-band sound absorption by using micro-perforated dielectric elastomer actuator. Applied Physics Letters, 2017, 110, .	1.5	47
9	Can DC Motors Directly Drive Flapping Wings at High Frequency and Large Wing Strokes?. IEEE/ASME Transactions on Mechatronics, 2014, 19, 109-120.	3.7	45
10	Very high dielectric strength for dielectric elastomer actuators in liquid dielectric immersion. Applied Physics Letters, 2013, 102, .	1.5	43
11	Eventâ€triggered control for a saturated nonlinear system with prescribed performance and finiteâ€time convergence. International Journal of Robust and Nonlinear Control, 2018, 28, 5312-5325.	2.1	39
12	Dielectric elastomer unimorph using flexible electrodes of electrolessly deposited (ELD) silver. Sensors and Actuators A: Physical, 2011, 169, 234-241.	2.0	38
13	Smart Window Based on Electric Unfolding of Microwrinkled TiO₂ Nanometric Films. ACS Photonics, 2018, 5, 3255-3262.	3.2	36
14	Efficient flapping wing drone arrests high-speed flight using post-stall soaring. Science Robotics, 2020, 5, .	9.9	36
15	Inhibiting electro-thermal breakdown of acrylic dielectric elastomer actuators by dielectric gel coating. Applied Physics Letters, 2016, 108, .	1.5	34
16	Tunable window device based on micro-wrinkling of nanometric zinc-oxide thin film on elastomer. Optics Letters, 2016, 41, 4433.	1.7	30
17	Transparent Tunable Acoustic Absorber Membrane Using Inkjet-Printed PEDOT:PSS Thin-Film Compliant Electrodes. ACS Applied Materials & Interfaces, 2018, 10, 39942-39951.	4.0	30
18	Bi-axially crumpled silver thin-film electrodes for dielectric elastomer actuators. Smart Materials and Structures, 2014, 23, 125021.	1.8	29

#	Article	IF	Citations
19	Large actuation and high dielectric strength in metallized dielectric elastomer actuators. Applied Physics Letters, 2012, 100, .	1.5	27
20	Microscopically crumpled indium-tin-oxide thin films as compliant electrodes with tunable transmittance. Applied Physics Letters, 2015, 107, .	1.5	26
21	Influence of test capacitor features on piezoelectric and dielectric measurement of ferroelectric films. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2006, 53, 15-22.	1.7	19
22	Flapping wings via direct-driving by DC motors. , 2013, , .		16
23	Muscle-like high-stress dielectric elastomer actuators with oil capsules. Smart Materials and Structures, 2014, 23, 105006.	1.8	16
24	High humidity sensing by â€˜hygromorphicâ€™ dielectric elastomer actuator. Sensors and Actuators B: Chemical, 2021, 329, 129268.	4.0	13
25	Stronger multilayer acrylic dielectric elastomer actuators with silicone gel coatings. Smart Materials and Structures, 2016, 25, 125006.	1.8	12
26	Fast electrothermally activated micro-positioner using a high-aspect-ratio micro-machined polymeric composite. Applied Physics Letters, 2012, 101, .	1.5	9
27	Optimum Design of Polymeric Thermal Microactuator With Embedded Silicon Skeleton. Journal of Microelectromechanical Systems, 2010, 19, 992-1001.	1.7	8
28	Large axial actuation of pre-stretched tubular dielectric elastomer and use of oil encapsulation to enhance dielectric breakdown strength. Smart Materials and Structures, 2015, 24, 045025.	1.8	8
29	Spring-Assisted Motorized Transmission for Efficient Hover by Four Flapping Wings. Journal of Mechanisms and Robotics, 2018, 10, .	1.5	8
30	“Clicking” compliant mechanism for flapping-wing micro aerial vehicle. , 2012, , .		6
31	Theoretical and practical investigation into the use of a bio-inspired â€œclickâ€•mechanism for the flight motor of a micro air vehicle. International Journal of Micro Air Vehicles, 2017, 9, 136-145.	1.0	6
32	Axial force transmission in flexible bowtie dielectric elastomer actuators. Applied Physics Letters, 2022, 120, .	1.5	6
33	Maximal strengths of dielectric elastomer fingers for a passive grip. Smart Materials and Structures, 2022, 31, 045014.	1.8	6
34	Numerical simulation of slider air bearings based on a mesh-free method for HDD applications. Microsystem Technologies, 2005, 11, 797-804.	1.2	5
35	Thermo-elastic behavior of a polymeric layer bonded between rigid interfaces. International Journal of Solids and Structures, 2008, 45, 5152-5164.	1.3	5
36	Strong dielectric-elastomer grippers with tension arch flexures. Proceedings of SPIE, 2017, , .	0.8	5

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37	Effects of Thinner Compliant Electrodes on Self-Clearability of Dielectric Elastomer Actuators. Actuators, 2020, 9, 121.	1.2	5
38	A piezoelectric micro-actuator with extended base-plate for HDD. Microsystem Technologies, 2005, 11, 598-605.	1.2	4
39	The effect of folds in thin metal film electrodes used in dielectric elastomer actuators. Proceedings of SPIE, 2013, , .	0.8	4
40	A stunt flying hawk-inspired drone. Science Robotics, 2020, 5, .	9.9	4
41	Dielectric Elastomer Actuator-Based Multifunctional Smart Window for Transparency Tuning and Noise Absorption. Actuators, 2021, 10, 16.	1.2	4
42	Is clicking mechanism good for flapping wing micro aerial vehicle?. , 2013, , .		3
43	Development of elastomeric flight muscles for flapping wing micro air vehicles. , 2017, , .		3
44	Electrically tunable window based on microwrinkled ZnO/Ag thin film. Proceedings of SPIE, 2017, , .	0.8	3
45	Multifunctional Smart Window Based on Dielectric Elastomer Actuator. , 2020, 64, .		3
46	Insect-inspired thoracic mechanism with non-linear stiffness for flapping-wing micro air vehicles. , 2014, , .		2
47	High stress actuation by dielectric elastomer with oil capsules. Proceedings of SPIE, 2014, , .	0.8	2
48	Large-strain, high-stress tubular dielectric elastomer actuator with high pre-stretch and oil encapsulation. Proceedings of SPIE, 2015, , .	0.8	2
49	Enhanced dielectric strength and actuation of acrylic elastomer with silicone gel encapsulation. Proceedings of SPIE, 2016, , .	0.8	2
50	An integral flexure for rotary actuators in hard disk drives. Sensors and Actuators A: Physical, 2004, 113, 248-256.	2.0	1
51	Buttons on Demand Sliding Mechanism Driven by Smart Materials and Mechanical Design. Actuators, 2021, 10, 251.	1.2	1
52	High-stress dielectric elastomer actuators with oil encapsulation. , 2014, , .		0
53	Controlled micro-wrinkling of ultrathin indium-tin-oxide films for transparency tuning. , 2017, , .		0