Hongzhong Liu

List of Publications by Year in descending order

56 papers	978 citations	567281 15 h-index	454955 30 g-index
57 all docs	57 docs citations	57 times ranked	1431 citing authors

#	Article	IF	Citations
1	Photoresponsive Softâ€Robotic Platform: Biomimetic Fabrication and Remote Actuation. Advanced Functional Materials, 2014, 24, 7598-7604.	14.9	188
2	Graphene-elastomer nanocomposites based flexible piezoresistive sensors for strain and pressure detection. Materials Research Bulletin, 2018, 102, 92-99.	5.2	76
3	Fabrication of Microlens Arrays with Wellâ€controlled Curvature by Liquid Trapping and Electrohydrodynamic Deformation in Microholes. Advanced Materials, 2012, 24, OP165-9, OP90.	21.0	48
4	Reversible Bending Behaviors of Photomechanical Soft Actuators Based on Graphene Nanocomposites. Scientific Reports, 2016, 6, 27366.	3.3	48
5	Flexible Batteryâ€Less Bioelectronic Implants: Wireless Powering and Manipulation by Nearâ€Infrared Light. Advanced Functional Materials, 2015, 25, 7071-7079.	14.9	44
6	Design of a precise and robust linearized converter for optical encoders using a ratiometric technique. Measurement Science and Technology, 2014, 25, 125003.	2.6	43
7	Flexible pyroelectric device for scavenging thermal energy from chemical process and as self-powered temperature monitor. Applied Energy, 2017, 195, 754-760.	10.1	42
8	Untethered Soft Actuators by Liquidâ€“Vapor Phase Transition: Remote and Programmable Actuation. Advanced Intelligent Systems, 2019, 1, 1900109.	6.1	42
9	An infrared-driven flexible pyroelectric generator for non-contact energy harvester. Nanoscale, 2016, 8, 8111-8117.	5.6	37
10	Ratiometric-Linearization-Based High-Precision Electronic Interpolator for Sinusoidal Optical Encoders. IEEE Transactions on Industrial Electronics, 2018, 65, 8224-8231.	7.9	34
11	Hierarchical Rose Petal Surfaces Delay the Early-Stage Bacterial Biofilm Growth. Langmuir, 2019, 35, 14670-14680.	3.5	33
12	Graphene-Based Bioinspired Compound Eyes for Programmable Focusing and Remote Actuation. ACS Applied Materials & Interfaces, 2015, 7, 21416-21422.	8.0	29
13	Precise and robust position estimation for optical incremental encoders using a linearization technique. Sensors and Actuators A: Physical, 2015, 232, 30-38.	4.1	22
14	Capillary number encouraged the construction of smart biomimetic eyes. Journal of Materials Chemistry C, 2015, 3, 5896-5902.	5.5	16
15	A theoretical investigation of generalized grating imaging and its application to optical encoders. Optics Communications, 2015, 354, 21-27.	2.1	16
16	Design and development of an optical encoder with sub-micron accuracy using a multiple-tracks analyser grating. Review of Scientific Instruments, 2017, 88, 015003.	1.3	15
17	Optimizing design of an optical encoder based on generalized grating imaging. Measurement Science and Technology, 2016, 27, 115005.	2.6	13
18	Precise Phase Demodulation Algorithm for Sinusoidal Encoders and Resolvers. IEEE Transactions on Industrial Electronics, 2020, 67, 8778-8787.	7.9	13

#	Article	IF	Citations
19	Electronic Interpolation Interface Based on Linear Subdivision Method for Sinusoidal Optical Encoders. IEEE Sensors Journal, 2020, 20, 3646-3654.	4.7	13
20	Photothermally triggered soft robot with adaptive local deformations and versatile bending modes. Smart Materials and Structures, 2019, 28, 02LT01.	3.5	12
21	Optimal design of a reflective diffraction grating scale with sine-trapezoidal groove for interferential optical encoders. Optics and Lasers in Engineering, 2020, 134, 106196.	3.8	12
22	A metal/insulator/metal field-emission cannon. Nanotechnology, 2011, 22, 455302.	2.6	11
23	Calibration of non-contact incremental linear encoders using a macroâ€“micro dual-drive high-precision comparator. Measurement Science and Technology, 2015, 26, 095103.	2.6	11
24	Effects of antiferroelectric substitution on the structure and ferroelectric properties of a complex perovskite solid solution. Journal of Materials Chemistry C, 2020, 8, 5795-5806.	5.5	11
25	Controllable actuation of photomechanical bilayer nanocomposites for inÂvitro cell manipulation. Carbon, 2018, 139, 1048-1056.	10.3	10
26	Multiple harmonics suppression for optical encoders based on generalized grating imaging. Journal of Modern Optics, 2016, 63, 1564-1572.	1.3	9
27	Light-driven untethered soft actuators based on biomimetic microstructure arrays. Soft Matter, 2021, 17, 8651-8661.	2.7	9
28	Reconfigurable and tunable photo-controlled hydrogel using hydrogen bonding to drive molecule self-assembly and cross-linking. Journal of Materials Science, 2020, 55, 14740-14750.	3.7	8
29	Tunable mirolens array with a large fill-factor: Self-assembly fabrication and electrodrodynamic actuation. Sensors and Actuators A: Physical, 2016, 240, 85-91.	4.1	7
30	Micro-/nanodomains and their switching in a high Curie-temperature ferroelectric single crystal of Bi(Zn2/3Nb1/3)O3-PbTiO3. Ceramics International, 2018, 44, S189-S194.	4.8	7
31	Crawlingâ€“jumping synergic bioinspired robots harnessing electroactive bistable actuators by adjusting mechanical responses and forces. Applied Materials Today, 2021, 24, 101091.	4.3	7
32	Bio-inspired eyes with eyeball-shaped lenses actuated by electro-hydrodynamic forces. RSC Advances, 2016, 6, 23653-23657.	3.6	6
33	Biomimetic magnetic-responsive cilia-like soft device: surface energy control and external field actuation. Journal of Materials Science: Materials in Electronics, 2019, 30, 3767-3772.	2.2	6
34	Bacterial nanotubes mediate bacterial growth on periodic nano-pillars. Soft Matter, 2020, 16, 7613-7623.	2.7	6
35	Development of a polar-coordinate optical encoder: principle and application. Optical Engineering, 2018, 57, 1.	1.0	6
36	Adjusting light distribution for generating microlens arrays with a controllable profile and fill factor. Journal of Micromechanics and Microengineering, 2014, 24, 125012.	2.6	5

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37	Tunable liquid microlens arrays actuated by infrared light-responsive graphene microsheets. Journal of Micromechanics and Microengineering, 2017, 27, 085006.	2.6	5
38	Formation of highly ordered micro fillers in polymeric matrix by electro-field-assisted aligning. RSC Advances, 2019, 9, 15238-15245.	3.6	4
39	Bioinspired from butterfly wings: programmable actuation of isolated rods architectures for magnetic-assisted microswitches. Smart Materials and Structures, 2019, 28, 075014.	3.5	4
40	Enhancements of Loading Capacity and Moving Ability by Microstructures for Wireless Soft Robot Boats. Langmuir, 2020, 36, 14728-14736.	3.5	4
41	Multidomain Oriented Particle Chains Based on Spatial Electric Field and Their Optical Application. Langmuir, 2020, 36, 11546-11555.	3.5	4
42	Three-dimensional patterned distribution of thermal conductivity in the volume for effective thermal concentration. Journal of Applied Physics, 2021, 129, .	2.5	4
43	A novel intrinsically strain sensor for large strain detection. Sensors and Actuators A: Physical, 2021, 332, 113081.	4.1	4
44	Improved Eccentricity Self-Detection Method Based on Least Square Algorithm for Polar Coordinate Encoder. IEEE Sensors Journal, 2021, 21, 26902-26911.	4.7	4
45	Freestanding membrane composed of micro-ring array with ultrahigh sidewall aspect ratio for application in lightweight cathode arrays. Applied Surface Science, 2014, 322, 28-34.	6.1	3
46	Fabrication of high edge-definition steel-tape gratings for optical encoders. Review of Scientific Instruments, 2017, 88, 105006.	1.3	3
47	Liquid microsphere arrays for imaging magnification. Optics Communications, 2018, 428, 89-94.	2.1	3
48	Bilayer liquid-filled compound microlens arrays: A way to compensate aberration. Journal of Applied Physics, 2020, 128, .	2.5	3
49	Intergrated Shape Memory Alloys Soft Actuators with Periodic and Inhomogeneous Deformations by Modulating Elastic Tendon Structures. Advanced Engineering Materials, 2020, 22, 2000640.	3.5	3
50	Untethered, ultra-light soft actuator based on positively charged 3D fluffy silica micro-nanofibers by electrospinning. Journal of Materials Science, 2020, 55, 12789-12800.	3.7	3
51	Thermal Diodes Based on Fractal Structures with Tunable Thermal Threshold. Advanced Functional Materials, 2022, 32, .	14.9	3
52	Efficient electrothermal actuation of liquid microlens arrays with low voltages. RSC Advances, 2016, 6, 102149-102154.	3.6	2
53	Submersible Softâ€Robotic Platform for Noiseâ€Free Hovering Utilizing Liquidâ€“Vapor Phase Transition. Advanced Intelligent Systems, 2021, 3, 2000147.	6.1	2
54	10.1063/5.0030241.1. , 2021, , .		0

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55	Submersible Softâ€Robotic Platform for Noiseâ€Free Hovering Utilizing Liquidâ€“Vapor Phase Transition. Advanced Intelligent Systems, 2021, 3, 2170013.	6.1	0
56	Varifocal liquid microlens in scaffold microstructures under electrothermal actuation. Sensors and Actuators A: Physical, 2022, 341, 113584.	4.1	0