Jianxiong Zhu

List of Publications by Year
in descending order

54 papers	2,103 citations	394421 19 h-index	233421 45 g-index
55 all docs	55 docs citations	55 times ranked	2022 citing authors

#	Article	IF	Citations
1	Progress in wearable electronics/photonicsâ€"Moving toward the era of artificial intelligence and internet of things. InformaÄnÃ-MateriÃ¡ly, 2020, 2, 1131-1162.	17.3	343
2	Development Trends and Perspectives of Future Sensors and MEMS/NEMS. Micromachines, 2020, 11, 7.	2.9	216
3	Deep learning-enabled triboelectric smart socks for IoT-based gait analysis and VR applications. Npj Flexible Electronics, 2020, 4, .	10.7	213
4	Progress in<scp>TENG</scp>technologyâ€"A journey from energy harvesting to nanoenergy and nanosystem. EcoMat, 2020, 2, e12058.	11.9	194
5	Flexible, Stretchable, and Transparent Planar Microsupercapacitors Based on 3D Porous Laserâ€Induced Graphene. Small, 2018, 14, 1702249.	10.0	179
6	Silicone-Based Triboelectric Nanogenerator for Water Wave Energy Harvesting. ACS Applied Materials & Interfaces, 2018, 10, 3616-3623.	8.0	98
7	Toward Healthcare Diagnoses by Machine-Learning-Enabled Volatile Organic Compound Identification. ACS Nano, 2021, 15, 894-903.	14.6	81
8	Machine learning-enabled textile-based graphene gas sensing with energy harvesting-assisted IoT application. Nano Energy, 2021, 86, 106035.	16.0	70
9	Biomimetic Turbinate-like Artificial Nose for Hydrogen Detection Based on 3D Porous Laser-Induced Graphene. ACS Applied Materials & Interfaces, 2019, 11, 24386-24394.	8.0	64
10	Continuous direct current by charge transportation for next-generation IoT and real-time virtual reality applications. Nano Energy, 2020, 73, 104760.	16.0	61
11	A Hybrid Piezoelectric and Triboelectric Nanogenerator with PVDF Nanoparticles and Leafâ€Shaped Microstructure PTFE Film for Scavenging Mechanical Energy. Advanced Materials Interfaces, 2018, 5, 1700750.	3.7	52
12	Volatile organic compounds sensing based on Bennet doubler-inspired triboelectric nanogenerator and machine learning-assisted ion mobility analysis. Science Bulletin, 2021, 66, 1176-1185.	9.0	50
13	Electrospinning poly(l-lactic acid) piezoelectric ordered porous nanofibers for strain sensing and energy harvesting. Journal of Materials Science: Materials in Electronics, 2017, 28, 12080-12085.	2.2	48
14	Programmed-triboelectric nanogeneratorsâ€"A multi-switch regulation methodology for energy manipulation. Nano Energy, 2020, 78, 105241.	16.0	42
15	A flexible comb electrode triboelectricâ€"electret nanogenerator with separated microfibers for a self-powered position, motion direction and acceleration tracking sensor. Journal of Materials Chemistry A, 2018, 6, 16548-16555.	10.3	39
16	Half-Pipe Palladium Nanotube-Based Hydrogen Sensor Using a Suspended Nanofiber Scaffold. ACS Applied Materials & Interfaces, 2019, 11, 13343-13349.	8.0	38
17	Zinc Oxide-Enhanced Piezoelectret Polypropylene Microfiber for Mechanical Energy Harvesting. ACS Applied Materials & Interfaces, 2018, 10, 19940-19947.	8.0	34
18	Hybrid Electromagnetic and Triboelectric Nanogenerators with Multi-Impact for Wideband Frequency Energy Harvesting. Energies, 2017, 10, 2024.	3.1	31

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19	Enhanced in-vitro osteoblastic functions on Î²-type titanium alloy using surface mechanical attrition treatment. Materials Science and Engineering C, 2019, 97, 688-697.	7.3	27
20	A High-Response Electrochemical As(III) Sensor Using Fe3O4â€“rGO Nanocomposite Materials. Chemosensors, 2021, 9, 150.	3.6	22
21	A flexible multi-layer electret nanogenerator for bending deformation energy harvesting and strain sensing. Materials Research Bulletin, 2018, 102, 130-136.	5.2	20
22	Advances in Electrochemical Detection Electrodes for As(III). Nanomaterials, 2022, 12, 781.	4.1	17
23	Dynamic phenomena and analysis of MEMS capacitive power harvester subjected to low-frequency excitations. Nonlinear Dynamics, 2015, 79, 673-688.	5.2	14
24	Cost-effective fabrication and high-frequency response of non-ideal RC application based on 3D porous laser-induced graphene. Journal of Materials Science, 2018, 53, 12413-12420.	3.7	13
25	A hybrid electromagnetic and leaf-shaped polytetrafluoroethylene triboelectric with an arc-shaped brace structure for energy harvesting. RSC Advances, 2017, 7, 49562-49567.	3.6	12
26	Singleâ€Electrode, Nylonâ€Fiberâ€Enhanced Polytetrafluoroethylene Electret Film with Hollow Cylinder Structure for Mechanical Energy Harvesting. Energy Technology, 2018, 6, 1112-1118.	3.8	12
27	High performance lithium-sulfur batteries for storing pulsed energy generated by triboelectric nanogenerators. Scientific Reports, 2017, 7, 425.	3.3	11
28	A flexible piezoresistive carbon black network in silicone rubber for wide range deformation and strain sensing. Journal of Applied Physics, 2018, 123, 034505.	2.5	11
29	Modulated Pencil-Drawn U-Shaped Piezoresistive Graphite on Compound Fibers for Wind Sensing. Journal of Electronic Materials, 2018, 47, 6518-6524.	2.2	9
30	Two-cavity MEMS variable capacitor for power harvesting. Journal of Micromechanics and Microengineering, 2012, 22, 065003.	2.6	7
31	Surface Micromachined MEMS Capacitors With Dual Cavity for Energy Harvesting. Journal of Microelectromechanical Systems, 2013, 22, 1458-1469.	2.5	7
32	Spectrum Analysis Enabled Periodic Feature Reconstruction Based Automatic Defect Detection System for Electroluminescence Images of Photovoltaic Modules. Micromachines, 2022, 13, 332.	2.9	7
33	Proximity sensing of electrostatic induction electret nanoparticles device using separation electrode. AIP Advances, 2017, 7, .	1.3	6
34	Power generation from microfluidic drops using inorganic silicon dioxide electret film. Micro and Nano Letters, 2018, 13, 1421-1424.	1.3	5
35	Numerical modeling of dynamic response of miniature multi-impact electromagnetic device for low and wide range frequencies energy harvesting. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2019, 233, 2400-2409.	2.1	5
36	Carbon black-reinforced 3D and 4D printable conductive polymer composites. , 2020, , 367-385.		5

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37	Artificial Intelligence of Manufacturing Robotics Health Monitoring System by Semantic Modeling. Micromachines, 2022, 13, 300.	2.9	5
38	Suspended polytetrafluoroethylene nanostructure electret film in dual variable cavities for self-powered micro-shock sensing. Materials Research Express, 2018, 5, 046305.	1.6	4
39	Different Microtubule Structures Assembled by Kinesin Motors. Langmuir, 2018, 34, 9768-9773.	3.5	4
40	Bilateral multi-impact oscillators for cantilever energy harvesting enhancement. International Journal of Green Energy, 2022, 19, 521-528.	3.8	4
41	Miniature and tunable high voltage-driven soft electroactive biconvex lenses for optical visual identification. Journal of Micromechanics and Microengineering, 2022, 32, 064004.	2.6	4
42	MEMS fabrication and frequency sweep for suspending beam and plate electrode in electrostatic capacitor. Solid-State Electronics, 2018, 139, 94-100.	1.4	3
43	Design and fabrication of 3D flexible thermoelectric energy generator using chemical vapor deposition method based on paper substrate. , 2018, , .		3
44	Dynamic Study of MEMS Variable Capacitive Device for Power Harvesting. , 2012, , .		2
45	Asymmetric disappearance and periodic asymmetric phenomena of rocking dynamics in micro dual-capacitive energy harvester. AIP Conference Proceedings, 2018, , .	0.4	2
46	Symmetry and asymmetry from MEMS variable capacitor by nonlinear micro stoppers. Mechanics and Industry, 2021, 22, 41.	1.3	2
47	A bottomâ€up optimization method for inverse design of twoâ€dimensional clampedâ€free elastic rods. International Journal for Numerical Methods in Engineering, 2022, 123, 2556-2572.	2.8	2
48	MEMS capacitors with dual cavity for power harvesting. Proceedings of SPIE, 2012, , .	0.8	1
49	Two-cavity MEMS capacitive power scavenger. Proceedings of SPIE, 2012, , .	0.8	1
50	Bulk silicon micromachined suspended fixed-end SiO2 film capacitor for passive high-pass RC filter. Microsystem Technologies, 2018, 24, 929-934.	2.0	1
51	Feasibility Study of High-Voltage Ion Mobility for Gas Identification Based on Triboelectric Power Source. , 2019, , .		1
52	Half-Pipe Palladium Nanotube Network Hydrogen Sensor Based on Electrospun Nanofiber Scaffolds. , 2019, , .		1
53	Numerical Modeling of Electromagnetic and Multi-point Impacts Stoppers Coupling for Low Frequency Energy Harvesting. DEStech Transactions on Computer Science and Engineering, 2017, , .	0.1	0
54	A Study on the Strategy of Developing New Agricultural Management Business Entity in North-west Poverty-stricken Area. , 2018, , .		0