

Huicong Liu

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

61 papers	2,607 citations	26 h-index	50 g-index
80 ext. papers	3,449 ext. citations	5.9 avg, IF	5.55 L-index

#	Paper	IF	Citations
61	A comprehensive review on piezoelectric energy harvesting technology: Materials, mechanisms, and applications. <i>Applied Physics Reviews</i> , 2018 , 5, 041306	17.3	316
60	Piezoelectric MEMS Energy Harvester for Low-Frequency Vibrations With Wideband Operation Range and Steadily Increased Output Power. <i>Journal of Microelectromechanical Systems</i> , 2011 , 20, 1131-1142	2.542	258
59	Haptic-feedback smart glove as a creative human-machine interface (HMI) for virtual/augmented reality applications. <i>Science Advances</i> , 2020 , 6, eaaz8693	14.3	177
58	Investigation of a MEMS piezoelectric energy harvester system with a frequency-widened-bandwidth mechanism introduced by mechanical stoppers. <i>Smart Materials and Structures</i> , 2012 , 21, 035005	3.4	167
57	Piezoelectric MEMS-based wideband energy harvesting systems using a frequency-up-conversion cantilever stopper. <i>Sensors and Actuators A: Physical</i> , 2012 , 186, 242-248	3.9	148
56	A new energy harvester design for high power output at low frequencies. <i>Sensors and Actuators A: Physical</i> , 2013 , 199, 344-352	3.9	110
55	A new S-shaped MEMS PZT cantilever for energy harvesting from low frequency vibrations below 30 Hz. <i>Microsystem Technologies</i> , 2012 , 18, 497-506	1.7	107
54	A rotational pendulum based electromagnetic/triboelectric hybrid-generator for ultra-low-frequency vibrations aiming at human motion and blue energy applications. <i>Nano Energy</i> , 2019 , 63, 103871	17.1	92
53	Development of piezoelectric microcantilever flow sensor with wind-driven energy harvesting capability. <i>Applied Physics Letters</i> , 2012 , 100, 223905	3.4	91
52	A non-resonant rotational electromagnetic energy harvester for low-frequency and irregular human motion. <i>Applied Physics Letters</i> , 2018 , 113, 203901	3.4	85
51	A multi-frequency vibration-based MEMS electromagnetic energy harvesting device. <i>Sensors and Actuators A: Physical</i> , 2013 , 204, 37-43	3.9	73
50	Hybrid energy harvesting technology: From materials, structural design, system integration to applications. <i>Renewable and Sustainable Energy Reviews</i> , 2021 , 137, 110473	16.2	63
49	Advances in chemical sensing technology for enabling the next-generation self-sustainable integrated wearable system in the IoT era. <i>Nano Energy</i> , 2020 , 78, 105155	17.1	59
48	Feasibility study of a 3D vibration-driven electromagnetic MEMS energy harvester with multiple vibration modes. <i>Journal of Micromechanics and Microengineering</i> , 2012 , 22, 125020	2	55
47	A scrape-through piezoelectric MEMS energy harvester with frequency broadband and up-conversion behaviors. <i>Microsystem Technologies</i> , 2011 , 17, 1747-1754	1.7	51
46	Ultra-wide frequency broadening mechanism for micro-scale electromagnetic energy harvester. <i>Applied Physics Letters</i> , 2014 , 104, 053901	3.4	49
45	Novel augmented reality interface using a self-powered triboelectric based virtual reality 3D-control sensor. <i>Nano Energy</i> , 2018 , 51, 162-172	17.1	47

44	A MEMS-based piezoelectric cantilever patterned with PZT thin film array for harvesting energy from low frequency vibrations. <i>Physics Procedia</i> , 2011 , 19, 129-133		45
43	Investigation of the Nonlinear Electromagnetic Energy Harvesters From Hand Shaking. <i>IEEE Sensors Journal</i> , 2015 , 15, 2356-2364	4	42
42	An Intermittent Self-Powered Energy Harvesting System From Low-Frequency Hand Shaking. <i>IEEE Sensors Journal</i> , 2015 , 15, 4782-4790	4	38
41	An In-Plane Approximated Nonlinear MEMS Electromagnetic Energy Harvester. <i>Journal of Microelectromechanical Systems</i> , 2014 , 23, 740-749	2.5	37
40	Intuitive-augmented human-machine multidimensional nano-manipulation terminal using triboelectric stretchable strip sensors based on minimalist design. <i>Nano Energy</i> , 2019 , 60, 440-448	17.1	34
39	An epidermal sEMG tattoo-like patch as a new human-machine interface for patients with loss of voice. <i>Microsystems and Nanoengineering</i> , 2020 , 6, 16	7.7	33
38	The Design and Characterization of a Flexible Tactile Sensing Array for Robot Skin. <i>Sensors</i> , 2016 , 16,	3.8	32
37	An Electromagnetic MEMS Energy Harvester Array with Multiple Vibration Modes. <i>Micromachines</i> , 2015 , 6, 984-992	3.3	30
36	A hybrid flapping-blade wind energy harvester based on vortex shedding effect. <i>Journal of Microelectromechanical Systems</i> , 2016 , 25, 845-847	2.5	29
35	Flow sensing and energy harvesting characteristics of a wind-driven piezoelectric Pb(Zr0.52, Ti0.48)O3 microcantilever. <i>Micro and Nano Letters</i> , 2014 , 9, 286-289	0.9	26
34	Artificial Intelligence-Enabled Caregiving Walking Stick Powered by Ultra-Low-Frequency Human Motion. <i>ACS Nano</i> , 2021 ,	16.7	25
33	A Study on Piezoelectric Energy-Harvesting Wireless Sensor Networks Deployed in a Weak Vibration Environment. <i>IEEE Sensors Journal</i> , 2017 , 17, 6770-6777	4	23
32	A Low-Frequency MEMS Piezoelectric Energy Harvesting System Based on Frequency Up-Conversion Mechanism. <i>Micromachines</i> , 2019 , 10,	3.3	22
31	Investigation of Position Sensing and Energy Harvesting of a Flexible Triboelectric Touch Pad. <i>Nanomaterials</i> , 2018 , 8,	5.4	21
30	A PZT Actuated Triple-Finger Gripper for Multi-Target Micromanipulation. <i>Micromachines</i> , 2017 , 8, 33	3.3	21
29	Study of an Electromagnetic Ocean Wave Energy Harvester Driven by an Efficient Swing Body Toward the Self-Powered Ocean Buoy Application. <i>IEEE Access</i> , 2019 , 7, 129758-129769	3.5	19
28	A high-performance triboelectric-electromagnetic hybrid wind energy harvester based on rotational tapered rollers aiming at outdoor IoT applications. <i>IScience</i> , 2021 , 24, 102300	6.1	19
27	Large-Scale and Flexible Self-Powered Triboelectric Tactile Sensing Array for Sensitive Robot Skin. <i>Polymers</i> , 2017 , 9,	4.5	16

26	Study of a Hybrid Generator Based on Triboelectric and Electromagnetic Mechanisms. <i>IEEE Sensors Journal</i> , 2017 , 17, 3853-3860	4	14
25	Modeling and verification of a piezoelectric frequency-up-conversion energy harvesting system. <i>Microsystem Technologies</i> , 2017 , 23, 2459-2466	1.7	12
24	Bioinspired soft caterpillar robot with ultra-stretchable bionic sensors based on functional liquid metal. <i>Nano Energy</i> , 2021 , 84, 105896	17.1	12
23	A Self-Powered Six-Axis Tactile Sensor by Using Triboelectric Mechanism. <i>Nanomaterials</i> , 2018 , 8,	5.4	11
22	A Delta-Parallel-Inspired Human Machine Interface by Using Self-Powered Triboelectric Nanogenerator Toward 3D and VR/AR Manipulations. <i>Advanced Materials Technologies</i> , 2021 , 6, 2000912	6.8	10
21	All-weather, natural silent speech recognition via machine-learning-assisted tattoo-like electronics. <i>Npj Flexible Electronics</i> , 2021 , 5,	10.7	10
20	Flexible Ultrasonic Transducer Array with Bulk PZT for Adjuvant Treatment of Bone Injury. <i>Sensors</i> , 2019 , 20,	3.8	9
19	Investigation of Piezoelectric MEMS-based Wideband Energy Harvesting System with Assembled Frequency-up- conversion Mechanism. <i>Procedia Engineering</i> , 2011 , 25, 725-728		8
18	Development of a Thermoelectric and Electromagnetic Hybrid Energy Harvester from Water Flow in an Irrigation System. <i>Micromachines</i> , 2018 , 9,	3.3	7
17	Scanning Liquid-Immersed Microsphere Optical Superresolution Imaging Based on Microrobotics Manipulation. <i>IEEE Nanotechnology Magazine</i> , 2018 , 17, 860-864	2.6	6
16	Topologically Optimized Nano-Positioning Stage Integrating with a Capacitive Comb Sensor. <i>Sensors</i> , 2017 , 17,	3.8	6
15	A rotational wearable energy harvester for human motion 2017 ,		5
14	An Ultrasonic Proximity Sensing Skin for Robot Safety Control by Using Piezoelectric Micromachined Ultrasonic Transducers (PMUTs). <i>IEEE Sensors Journal</i> , 2021 , 1-1	4	5
13	A Wideband Triboelectric Energy Harvester. <i>Journal of Physics: Conference Series</i> , 2013 , 476, 012128	0.3	4
12	Design and experiment of an electromagnetic ocean wave energy harvesting device 2018 ,		4
11	A flexible capacitive tactile sensor for robot skin 2016 ,		3
10	A hybrid flapping-leaf microgenerator for harvesting wind-flow energy 2016 ,		3
9	Ultra-broadband electromagnetic MEMS vibration energy harvesting. <i>Journal of Physics: Conference Series</i> , 2013 , 476, 012049	0.3	3

8	Investigation of a Piezoelectric Driven MEMS Mirror based on Single S-shaped PZT Actuator. <i>Procedia Engineering</i> , 2011 , 25, 701-704		3
7	Electron Beam Irradiation Induced Multiwalled Carbon Nanotubes Fusion inside SEM. <i>Scanning</i> , 2017 , 2017, 8563931	1.6	2
6	Wearable multichannel pulse condition monitoring system based on flexible pressure sensor arrays.. <i>Microsystems and Nanoengineering</i> , 2022 , 8, 16	7.7	2
5	A Pt/Au hybrid self-actuating nanorobot towards to drug delivery system 2015 ,		1
4	Low-frequency vibration-based energy harvester using a piezoelectric composite beam 2013 ,		1
3	A MEMS-based wideband piezoelectric energy harvester system using mechanical stoppers 2011 ,		1
2	A flexible triaxial force capacitive sensor with microstructure electrode and orthogonal microstructure		1
1	A magnetic force induced frequency-up-conversion energy harvesting system 2016 ,		1