Jin Yang

List of Publications by Year
in descending order

101 papers	9,673 citations	57631 44 h-index	46693 89 g-index
102 all docs	102 docs citations	102 times ranked	6597 citing authors

#	Article	IF	Citations
1	Sign-to-speech translation using machine-learning-assisted stretchable sensor arrays. Nature Electronics, 2020, 3, 571-578.	13.1	513
2	Networks of Triboelectric Nanogenerators for Harvesting Water Wave Energy: A Potential Approach toward Blue Energy. ACS Nano, 2015, 9, 3324-3331.	7.3	509
3	Eardrumâ€Inspired Active Sensors for Selfâ€Powered Cardiovascular System Characterization and Throatâ€Attached Antiâ€Interference Voice Recognition. Advanced Materials, 2015, 27, 1316-1326.	11.1	487
4	Harvesting Energy from the Natural Vibration of Human Walking. ACS Nano, 2013, 7, 11317-11324.	7.3	448
5	Ultrathin, Rollable, Paper-Based Triboelectric Nanogenerator for Acoustic Energy Harvesting and Self-Powered Sound Recording. ACS Nano, 2015, 9, 4236-4243.	7.3	419
6	Triboelectric Nanogenerator Enabled Body Sensor Network for Self-Powered Human Heart-Rate Monitoring. ACS Nano, 2017, 11, 8830-8837.	7.3	400
7	Triboelectrification-Based Organic Film Nanogenerator for Acoustic Energy Harvesting and Self-Powered Active Acoustic Sensing. ACS Nano, 2014, 8, 2649-2657.	7.3	390
8	Largeâ€Scale and Washable Smart Textiles Based on Triboelectric Nanogenerator Arrays for Selfâ€Powered Sleeping Monitoring. Advanced Functional Materials, 2018, 28, 1704112.	7.8	339
9	A Wireless Textile-Based Sensor System for Self-Powered Personalized Health Care. Matter, 2020, 2, 896-907.	5.0	310
10	Machine-knitted washable sensor array textile for precise epidermal physiological signal monitoring. Science Advances, 2020, 6, eaay2840.	4.7	309
11	Flexible Weaving Constructed Selfâ€Powered Pressure Sensor Enabling Continuous Diagnosis of Cardiovascular Disease and Measurement of Cuffless Blood Pressure. Advanced Functional Materials, 2019, 29, 1806388.	7.8	297
12	Broadband Vibrational Energy Harvesting Based on a Triboelectric Nanogenerator. Advanced Energy Materials, 2014, 4, 1301322.	10.2	280
13	3D Stack Integrated Triboelectric Nanogenerator for Harvesting Vibration Energy. Advanced Functional Materials, 2014, 24, 4090-4096.	7.8	263
14	Light-induced pyroelectric effect as an effective approach for ultrafast ultraviolet nanosensing. Nature Communications, 2015, 6, 8401.	5.8	261
15	A Wearable Allâ€Solid Photovoltaic Textile. Advanced Materials, 2016, 28, 263-269.	11.1	254
16	Membraneâ€Based Selfâ€Powered Triboelectric Sensors for Pressure Change Detection and Its Uses in Security Surveillance and Healthcare Monitoring. Advanced Functional Materials, 2014, 24, 5807-5813.	7.8	250
17	Personalized Keystroke Dynamics for Self-Powered Humanâ€“Machine Interfacing. ACS Nano, 2015, 9, 105-116.	7.3	239
18	Super-robust and frequency-multiplied triboelectric nanogenerator for efficient harvesting water and wind energy. Nano Energy, 2019, 64, 103908.	8.2	239

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19	Single-layered ultra-soft washable smart textiles for all-around ballistocardiograph, respiration, and posture monitoring during sleep. Biosensors and Bioelectronics, 2020, 155, 112064.	5.3	233
20	Triboelectric Nanogenerator Built on Suspended 3D Spiral Structure as Vibration and Positioning Sensor and Wave Energy Harvester. ACS Nano, 2013, 7, 10424-10432.	7.3	204
21	Î²-cyclodextrin enhanced triboelectrification for self-powered phenol detection and electrochemical degradation. Energy and Environmental Science, 2015, 8, 887-896.	15.6	192
22	A Triboelectric Nanogeneratorâ€Based Smart Insole for Multifunctional Gait Monitoring. Advanced Materials Technologies, 2019, 4, 1800360.	3.0	181
23	Triboelectrification Based Motion Sensor for Human-Machine Interfacing. ACS Applied Materials & Interfaces, 2014, 6, 7479-7484.	4.0	162
24	Selfâ€Powered Trajectory, Velocity, and Acceleration Tracking of a Moving Object/Body using a Triboelectric Sensor. Advanced Functional Materials, 2014, 24, 7488-7494.	7.8	161
25	Modeling, characterization and fabrication of vibration energy harvester using Terfenol-D/PZT/Terfenol-D composite transducer. Sensors and Actuators A: Physical, 2009, 156, 350-358.	2.0	135
26	Automatic Mode Transition Enabled Robust Triboelectric Nanogenerators. ACS Nano, 2015, 9, 12334-12343.	7.3	111
27	Rationally designed rotation triboelectric nanogenerators with much extended lifetime and durability. Nano Energy, 2020, 68, 104378.	8.2	111
28	Smart textile triboelectric nanogenerators: Current status and perspectives. MRS Bulletin, 2021, 46, 512-521.	1.7	111
29	Wireless self-powered sensor networks driven by triboelectric nanogenerator for in-situ real time survey of environmental monitoring. Nano Energy, 2018, 53, 501-507.	8.2	109
30	Smart Insole for Robust Wearable Biomechanical Energy Harvesting in Harsh Environments. ACS Nano, 2020, 14, 14126-14133.	7.3	107
31	Controllable Graphene Wrinkle for a High-Performance Flexible Pressure Sensor. ACS Applied Materials & Interfaces, 2021, 13, 20448-20458.	4.0	101
32	Triboelectric vibration sensor for a human-machine interface built on ubiquitous surfaces. Nano Energy, 2019, 59, 689-696.	8.2	99
33	Elasticâ€Connection and Softâ€Contact Triboelectric Nanogenerator with Superior Durability and Efficiency. Advanced Functional Materials, 2021, 31, 2105237.	7.8	68
34	Leak location in gas pipelines using cross-timeâ€“frequency spectrum of leakage-induced acoustic vibrations. Journal of Sound and Vibration, 2014, 333, 3889-3903.	2.1	67
35	Keystroke Dynamics Identification Based on Triboelectric Nanogenerator for Intelligent Keyboard Using Deep Learning Method. Advanced Materials Technologies, 2019, 4, 1800167.	3.0	57
36	An all-textile triboelectric sensor for wearable teleoperated humanâ€“machine interaction. Journal of Materials Chemistry A, 2019, 7, 26804-26811.	5.2	57

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37	Multilayeredâ€Electrodeâ€Based Triboelectric Nanogenerators with Managed Output Voltage and Multifold Enhanced Charge Transport. Advanced Energy Materials, 2015, 5, 1401452.	10.2	56
38	Broadband and three-dimensional vibration energy harvesting by a non-linear magnetoelectric generator. Applied Physics Letters, 2016, 109, .	1.5	54
39	Recent Progress in Triboelectric Nanogenerators as a Renewable and Sustainable Power Source. Journal of Nanomaterials, 2016, 2016, 1-24.	1.5	53
40	Surface Engineering of Graphene Composite Transparent Electrodes for High-Performance Flexible Triboelectric Nanogenerators and Self-Powered Sensors. ACS Applied Materials & Interfaces, 2017, 9, 36017-36025.	4.0	51
41	A two-dimensional broadband vibration energy harvester using magnetoelectric transducer. Applied Physics Letters, 2013, 103, .	1.5	50
42	Flexible Timboâ€Like Triboelectric Nanogenerator as Selfâ€Powered Force and Bend Sensor for Wireless and Distributed Landslide Monitoring. Advanced Materials Technologies, 2018, 3, 1800144.	3.0	50
43	Leak location using blind system identification in water distribution pipelines. Journal of Sound and Vibration, 2008, 310, 134-148.	2.1	48
44	An arc-shaped piezoelectric generator for multi-directional wind energy harvesting. Sensors and Actuators A: Physical, 2015, 236, 173-179.	2.0	46
45	Design and analysis of a 2D broadband vibration energy harvester for wireless sensors. Sensors and Actuators A: Physical, 2014, 205, 47-52.	2.0	45
46	Eco-friendly in-situ gap generation of no-spacer triboelectric nanogenerator for monitoring cardiovascular activities. Nano Energy, 2021, 90, 106580.	8.2	35
47	A self-powered and high-frequency vibration sensor with layer-powder-layer structure for structural health monitoring. Nano Energy, 2021, 90, 106366.	8.2	35
48	Detecting and Evaluating the Signals of Wirelessly Interrogational Passive SAW Resonator Sensors. IEEE Sensors Journal, 2004, 4, 828-836.	2.4	34
49	Transparent and flexible barcode based on sliding electrification for self-powered identification systems. Nano Energy, 2015, 12, 278-286.	8.2	34
50	An airtight-cavity-structural triboelectric nanogenerator-based insole for high performance biomechanical energy harvesting. Nanoscale, 2019, 11, 6802-6809.	2.8	34
51	Investigation of magnetostrictive/piezoelectric multilayer composite with a giant zero-biased magnetoelectric effect. Applied Physics A: Materials Science and Processing, 2013, 113, 413-421.	1.1	33
52	Leak detection and location for gas pipelines using acoustic emission sensors. , 2012, , .		29
53	Enabling the Unconstrained Epidermal Pulse Wave Monitoring via Fingerâ€Touching. Advanced Functional Materials, 2021, 31, 2102378.	7.8	29
54	Piezoelectric energy harvester scavenging AC magnetic field energy from electric power lines. Sensors and Actuators A: Physical, 2013, 193, 59-68.	2.0	27

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55	A magnetoelectric, broadband vibration-powered generator for intelligent sensor systems. Sensors and Actuators A: Physical, 2011, 168, 358-364.	2.0	26
56	Three-dimensional piezoelectric vibration energy harvester using spiral-shaped beam with triple operating frequencies. Review of Scientific Instruments, 2016, 87, 015003.	0.6	25
57	Ultrasensitive Fingertip-Contacted Pressure Sensors To Enable Continuous Measurement of Epidermal Pulse Waves on Ubiquitous Object Surfaces. ACS Applied Materials & Interfaces, 2019, 11, 46399-46407.	4.0	25
58	Magnetoelectric Energy Harvesting from Vibrations of Multiple Frequencies. Journal of Intelligent Material Systems and Structures, 2011, 22, 1631-1639.	1.4	24
59	A vibration energy harvester using magnet/piezoelectric composite transducer. Journal of Applied Physics, 2014, 115, .	1.1	23
60	Study on an improved acoustic leak detection method for water distribution systems. Urban Water Journal, 2013, 10, 71-84.	1.0	21
61	Self-Contained Wireless Hall Current Sensor Applied for Two-Wire Zip-Cords. IEEE Transactions on Magnetics, 2016, 52, 1-4.	1.2	20
62	A passive wireless triboelectric sensor via a surface acoustic wave resonator (SAWR). Nano Energy, 2020, 78, 105307.	8.2	20
63	Determination of acoustic speed for improving leak detection and location in gas pipelines. Review of Scientific Instruments, 2014, 85, 024901.	0.6	18
64	Enhanced Broadband Vibration Energy Harvesting Using a Multimodal Nonlinear Magnetoelectric Converter. Journal of Electronic Materials, 2016, 45, 3554-3561.	1.0	17
65	Knitting integral conformal all-textile strain sensor with commercial apparel characteristics for smart textiles. Applied Materials Today, 2022, 27, 101508.	2.3	16
66	Design and testing of piezoelectric energy harvester for powering wireless sensors of electric line monitoring system. Journal of Applied Physics, 2012, 111, 07E510.	1.1	14
67	A magnetoelectric-based broadband vibration energy harvester for powering wireless sensors. Science China Technological Sciences, 2011, 54, 1419-1427.	2.0	13
68	Graded Microstructured Flexible Pressure Sensors with High Sensitivity and an Ultrabroad Pressure Range for Epidermal Pulse Monitoring. ACS Applied Materials & Interfaces, 2021, 13, 55747-55755.	4.0	13
69	Dynamic magnetostrictive properties of magnetization-graded ferromagnetic material and application in magnetoelectric composite. Journal of Applied Physics, 2014, 115, .	1.1	12
70	Design and optimization of a bi-axial vibration-driven electromagnetic generator. Journal of Applied Physics, 2014, 116, .	1.1	12
71	3D, wideband vibro-impacting-based piezoelectric energy harvester. AIP Advances, 2015, 5, .	0.6	12
72	Multi-directional electromagnetic vibration energy harvester using circular Halbach array. AIP Advances, 2017, 7, .	0.6	12

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73	Performance of FeCoB based thin-film microwave noise suppressor applied to the electromagnetic interference design in the GHz frequency range. Journal of Applied Physics, 2014, 115, .	1.1	10
74	A resonant electromagnetic vibration energy harvester for intelligent wireless sensor systems. Journal of Applied Physics, 2015, 117, 17B509.	1.1	10
75	Flexible triboelectric nanogenerator toward ultrahigh-frequency vibration sensing. Nano Research, 2022, 15, 7484-7491.	5.8	10
76	Energy Harvesting from Ambient Vibrations with Arbitrary In-Plane Motion Directions Using a Magnetostrictive/Piezoelectric Laminate Composite Transducer. Journal of Electronic Materials, 2014, 43, 2559-2565.	1.0	9
77	High-sensitivity laminated magnetoelectric sensors without bias in composite of positive/negative giant magnetostrictive materials and piezoelectric single crystals. Journal of Applied Physics, 2014, 115, .	1.1	8
78	3D Waterproof MXeneâ€Based Textile Electronics for Physiology and Motion Signals Monitoring. Advanced Materials Interfaces, 2022, 9, .	1.9	8
79	Using Novel Complex-Efficient FastICA Blind Deconvolution Method for Urban Water Pipe Leak Localization in the Presence of Branch Noise. Journal of Water Resources Planning and Management - ASCE, 2021, 147, .	1.3	7
80	Leak acoustic detection in water distribution pipelines. , 2008, , .		6
81	Improved piezoelectric multifrequency energy harvesting by magnetic coupling. , 2011, , .		6
82	Enhanced sensitivity in magnetoelectric current-sensing devices with frequency up-conversion mechanism by modulating the magnetostrictive strain. Journal of Applied Physics, 2014, 115, .	1.1	6
83	A vibration energy harvester using magnetostrictive/piezoelectric composite transducer. , 2009, , .		5
84	DESIGN, MODELING, AND PERFORMANCE MEASUREMENTS OF A BROADBAND VIBRATION ENERGY HARVESTER USING A MAGNETOELECTRIC TRANSDUCER. Instrumentation Science and Technology, 2011, 39, 312-323.	0.9	5
85	Functional Nanomaterials for Sustainable Energy Technologies. Journal of Nanomaterials, 2016, 2016, 1-2.	1.5	5
86	Modeling of Magnetoelectric Effects in Magnetostrictive/Piezoelectric Laminated Composites Using the Energy Method. IEEE Transactions on Magnetics, 2017, 53, 1-6.	1.2	5
87	A magnetostrictive/piezoelectric laminate transducer based vibration energy harvester with resonance frequency tunability. , 2011, , .		4
88	A high-sensitivity zero-biased magnetoelectric sensor using five-phase laminate composites based on FeCoV nanocrystalline soft magnetic alloy. AIP Advances, 2017, 7, .	0.6	4
89	Asymmetric arcâ€shaped vortexâ€induced electromagnetic generator for harvesting energy from lowâ€velocity flowing water. IET Renewable Power Generation, 2017, 11, 1503-1508.	1.7	4
90	Leak Detection in Water Pipes Based on Maximum Entropy Version of Least Square Twin K-Class Support Vector Machine. Entropy, 2021, 23, 1247.	1.1	4

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91	A broadband vibration energy harvester using magnetoelectric transducer. , 2010, , .		3
92	A bi-axial and wideband vibration energy harvester using magnetoelectric transducer. , 2012, , .		3
93	Modal analysis of leakage-induced acoustic vibrations in different directions for leak detection and location in fluid-filled pipelines. , 2014, , .		3
94	A vibration energy harvester using five-phase laminate composite transducer based on nanocrystalline soft magnetic alloy. Journal of Applied Physics, 2015, 117, .	1.1	2
95	Characterization of Thickness Loss in a Storage Tank Plate with Piezoelectric Wafer Active Sensors. Crystals, 2022, 12, 92.	1.0	1
96	Leak location procedure based on the complex-valued FastICA blind deconvolution algorithm for water-filled branch pipe. Water Science and Technology: Water Supply, 2022, 22, 2560-2572.	1.0	1
97	A magnetoelectric transducer consisting of magnetostrictive and piezoelectric composite array. , 2008, , .		0
98	Application of blind system identification in acoustic source location. , 2008, , .		0
99	Multi-resonant vibration energy harvester using a spiral cantilever beam. , 2012, , .		0
100	Effect of adjustable bias voltage on magnetoelectric properties of piezoelectric/magnetostrictive laminate transducer. , 2012, , .		0
101	Wideband and 2D vibration energy harvester using multiple magnetoelectric transducers. Smart Structures and Systems, 2015, 16, 579-591.	1.9	0