Qiongfeng Shi

List of Publications by Year in Descending Order

76 papers	3,800 citations	38 h-index	61 g-index
88 ext. papers	5,456 ext. citations	11.5 avg, IF	6.41 L-index

#	Paper	IF	Citations
76	Biometrics-protected optical communication enabled by deep learning-enhanced triboelectric/photonic synergistic interface.. *Science Advances*, **2022**, 8, eabl9874	14.3	7
75	Constructing highly tribopositive elastic yarn through interfacial design and assembly for efficient energy harvesting and human-interactive sensing. *Nano Energy*, **2022**, 94, 106956	17.1	2
74	A humidity resistant and high performance triboelectric nanogenerator enabled by vortex-induced vibration for scavenging wind energy. *Nano Research*, **2022**, 15, 3246-3253	10	2
73	Noncontact Human-Machine Interface Using Complementary Information Fusion Based on MEMS and Triboelectric Sensors.. *Advanced Science*, **2022**, e2201056	13.6	4
72	Artificial Intelligence of Things (AIoT) Enabled Floor Monitoring System for Smart Home Applications. *ACS Nano*, **2021**,	16.7	16
71	All in One, Self-Powered Bionic Artificial Nerve Based on a Triboelectric Nanogenerator. *Advanced Science*, **2021**, 8, 2004727	13.6	11
70	Artificial Intelligence of Things (AIoT) Enabled Virtual Shop Applications Using Self-Powered Sensor Enhanced Soft Robotic Manipulator. *Advanced Science*, **2021**, 8, e2100230	13.6	41
69	A hybridized electromagnetic-triboelectric nanogenerator designed for scavenging biomechanical energy in human balance control. *Nano Research*, **2021**, 14, 4227	10	13
68	Technology evolution from self-powered sensors to AIoT enabled smart homes. *Nano Energy*, **2021**, 79, 105414	17.1	77
67	Hybridized wearable patch as a multi-parameter and multi-functional human-machine interface. *Nano Energy*, **2021**, 81, 105582	17.1	36
66	Shadow enhanced self-charging power system for wave and solar energy harvesting from the ocean. *Nature Communications*, **2021**, 12, 616	17.4	23
65	Triboelectric Nanogenerators and Hybridized Systems for Enabling Next-Generation IoT Applications. *Research*, **2021**, 2021, 6849171	7.8	26
64	Technology evolution from micro-scale energy harvesters to nanogenerators. *Journal of Micromechanics and Microengineering*, **2021**, 31, 093002	2	25
63	Magnetic-interaction assisted hybridized triboelectric-electromagnetic nanogenerator for advanced human-machine interfaces. *Nano Energy*, **2021**, 86, 106154	17.1	15
62	Transferred Laser-Scribed Graphene-Based Durable and Permeable Strain Sensor. *Advanced Materials Interfaces*, **2021**, 8, 2100625	4.6	1
61	Artificial intelligence of toilet (AI-Toilet) for an integrated health monitoring system (IHMS) using smart triboelectric pressure sensors and image sensor. *Nano Energy*, **2021**, 90, 106517	17.1	12
60	Haptic-feedback smart glove as a creative human-machine interface (HMI) for virtual/augmented reality applications. *Science Advances*, **2020**, 6, eaaz8693	14.3	177

59	Wearable Triboelectric-Human-Machine Interface (THMI) Using Robust Nanophotonic Readout. *ACS Nano*, **2020**, 14, 8915-8930	16.7	63
58	Wearable Triboelectric/Aluminum Nitride Nano-Energy-Nano-System with Self-Sustainable Photonic Modulation and Continuous Force Sensing. *Advanced Science*, **2020**, 7, 1903636	13.6	38
57	Machine Learning Glove Using Self-Powered Conductive Superhydrophobic Triboelectric Textile for Gesture Recognition in VR/AR Applications. *Advanced Science*, **2020**, 7, 2000261	13.6	127
56	Inkjet 3D Printed MEMS Vibrational Electromagnetic Energy Harvester. *Energies*, **2020**, 13, 2800	3.1	10
55	A novel hybridized blue energy harvester aiming at all-weather IoT applications. *Nano Energy*, **2020**, 76, 105052	17.1	50
54	Continuous direct current by charge transportation for next-generation IoT and real-time virtual reality applications. *Nano Energy*, **2020**, 73, 104760	17.1	34
53	Battery-free short-range self-powered wireless sensor network (SS-WSN) using TENG based direct sensory transmission (TDST) mechanism. *Nano Energy*, **2020**, 67, 104266	17.1	52
52	Progress in TENG technology—A journey from energy harvesting to nanoenergy and nanosystem. *EcoMat*, **2020**, 2, e12058	9.4	57
51	Progress in wearable electronics/photonics—Moving toward the era of artificial intelligence and internet of things. *InformaMat*, **2020**, 2, 1131-1162	23.1	143
50	Smart materials for smart healthcare—moving from sensors and actuators to self-sustained nanoenergy nanosystems. *Smart Materials in Medicine*, **2020**, 1, 92-124	12.9	41
49	Deep learning-enabled triboelectric smart socks for IoT-based gait analysis and VR applications. *Npj Flexible Electronics*, **2020**, 4,	10.7	76
48	Deep learning enabled smart mats as a scalable floor monitoring system. *Nature Communications*, **2020**, 11, 4609	17.4	92
47	Self-powered glove-based intuitive interface for diversified control applications in real/cyber space. *Nano Energy*, **2019**, 58, 641-651	17.1	89
46	Self-powered multifunctional monitoring system using hybrid integrated triboelectric nanogenerators and piezoelectric microsensors. *Nano Energy*, **2019**, 58, 612-623	17.1	58
45	Self-Powered Bio-Inspired Spider-Net-Coding Interface Using Single-Electrode Triboelectric Nanogenerator. *Advanced Science*, **2019**, 6, 1900617	13.6	89
44	Versatile microfluidic platform embedded with sidewall three-dimensional electrodes for cell manipulation. *Biomedical Physics and Engineering Express*, **2019**, 5, 055003	1.5	7
43	Minimalist and multi-functional human machine interface (HMI) using a flexible wearable triboelectric patch. *Nano Energy*, **2019**, 62, 355-366	17.1	92
42	A Motion-Balanced Sensor Based on the Triboelectricity of Nano-iron Suspension and Flexible Polymer. *Nanomaterials*, **2019**, 9,	5.4	8

41	Intuitive-augmented human-machine multidimensional nano-manipulation terminal using triboelectric stretchable strip sensors based on minimalist design. *Nano Energy*, **2019**, 60, 440-448	17.1	34
40	Triboelectric single-electrode-output control interface using patterned grid electrode. *Nano Energy* , **2019**, 60, 545-556	17.1	44
39	From flexible electronics technology in the era of IoT and artificial intelligence toward future implanted body sensor networks. *APL Materials*, **2019**, 7, 031302	5.7	73
38	Self-Powered and Self-Functional Cotton Sock Using Piezoelectric and Triboelectric Hybrid Mechanism for Healthcare and Sports Monitoring. *ACS Nano*, **2019**, 13, 1940-1952	16.7	144
37	A rotational pendulum based electromagnetic/triboelectric hybrid-generator for ultra-low-frequency vibrations aiming at human motion and blue energy applications. *Nano Energy*, **2019**, 63, 103871	17.1	92
36	Sensors and Control Interface Methods Based on Triboelectric Nanogenerator in IoT Applications. *IEEE Access*, **2019**, 7, 92745-92757	3.5	36
35	Study of thin film blue energy harvester based on triboelectric nanogenerator and seashore IoT applications. *Nano Energy*, **2019**, 66, 104167	17.1	66
34	High density nanowire electrodes for intracortical microstimulation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2019**, 2019, 5657-5660	0.9	
33	Self-Sustainable Wearable Textile Nano-Energy Nano-System (NENS) for Next-Generation Healthcare Applications. *Advanced Science*, **2019**, 6, 1901437	13.6	108
32	Development Trends and Perspectives of Future Sensors and MEMS/NEMS. *Micromachines*, **2019**, 11,	3.3	74
31	A Two-Degree-of-Freedom Cantilever-Based Vibration Triboelectric Nanogenerator for Low-Frequency and Broadband Operation. *Electronics (Switzerland)*, **2019**, 8, 1526	2.6	6
30	Beyond energy harvesting - multi-functional triboelectric nanosensors on a textile. *Nano Energy*, **2019**, 57, 338-352	17.1	119
29	Investigation of Broadband Characteristics of Multi-Frequency Piezoelectric Micromachined Ultrasonic Transducer (MF-pMUT). *IEEE Sensors Journal*, **2019**, 19, 860-867	4	20
28	More than energy harvesting – Combining triboelectric nanogenerator and flexible electronics technology for enabling novel micro-/nano-systems. *Nano Energy*, **2019**, 57, 851-871	17.1	177
27	A self-powered 3D activity inertial sensor using hybrid sensing mechanisms. *Nano Energy*, **2019**, 56, 651-661	17.1	33
26	Battery-free neuromodulator for peripheral nerve direct stimulation. *Nano Energy*, **2018**, 50, 148-158	17.1	63
25	Novel augmented reality interface using a self-powered triboelectric based virtual reality 3D-control sensor. *Nano Energy*, **2018**, 51, 162-172	17.1	47
24	A Self-Powered Six-Axis Tactile Sensor by Using Triboelectric Mechanism. *Nanomaterials*, **2018**, 8,	5.4	11

23	Investigation of Position Sensing and Energy Harvesting of a Flexible Triboelectric Touch Pad. *Nanomaterials*, **2018**, 8,	5.4	21
22	Controlling Surface Charge Generated by Contact Electrification: Strategies and Applications. *Advanced Materials*, **2018**, 30, e1802405	24	81
21	Triboelectric Balls as Three-Dimensional Vibrational Energy Harvesters and Self-Powered Sensors **2018**,		1
20	A non-resonant rotational electromagnetic energy harvester for low-frequency and irregular human motion. *Applied Physics Letters*, **2018**, 113, 203901	3.4	85
19	Development of a Highly Sensitive Humidity Sensor Based on a Piezoelectric Micromachined Ultrasonic Transducer Array Functionalized with Graphene Oxide Thin Film. *Sensors*, **2018**, 18,	3.8	20
18	Self-Powered Triboelectric Inertial Sensor Ball for IoT and Wearable Applications. *Journal of Physics: Conference Series*, **2018**, 1052, 012030	0.3	1
17	Triboelectric Self-Powered Wearable Flexible Patch as 3D Motion Control Interface for Robotic Manipulator. *ACS Nano*, **2018**, 12, 11561-11571	16.7	118
16	Development of a Thermoelectric and Electromagnetic Hybrid Energy Harvester from Water Flow in an Irrigation System. *Micromachines*, **2018**, 9,	3.3	7
15	Self-Powered Cursor Using a Triboelectric Mechanism. *Small Methods*, **2018**, 2, 1800078	12.8	15
14	Development of battery-free neural interface and modulated control of tibialis anterior muscle via common peroneal nerve based on triboelectric nanogenerators (TENGs). *Nano Energy*, **2017**, 33, 1-11	17.1	85
13	Broadband Energy Harvester Using Non-linear Polymer Spring and Electromagnetic/Triboelectric Hybrid Mechanism. *Scientific Reports*, **2017**, 7, 41396	4.9	82
12	Nanowire Electrodes Integrated on Tip of Microwire for Peripheral Nerve Stimulation. *Journal of Microelectromechanical Systems*, **2017**, 26, 921-925	2.5	1
11	Self-Powered Dual-Mode Amenity Sensor Based on the Water-Air Triboelectric Nanogenerator. *ACS Nano*, **2017**, 11, 10337-10346	16.7	81
10	Self-Powered Gyroscope Ball Using a Triboelectric Mechanism. *Advanced Energy Materials*, **2017**, 7, 1701308	21.8	68
9	Triboelectric and microfluidic integrated self-generated tactile sensor **2017**,		1
8	Combining neural electrodes and triboelectric nanogenerators (TENGS) to enable a self-sustainable platform for neuromodulation **2017**,		2
7	Self-powered triboelectric nanogenerator buoy ball for applications ranging from environment monitoring to water wave energy farm. *Nano Energy*, **2017**, 40, 203-213	17.1	96
6	Self-powered liquid triboelectric microfluidic sensor for pressure sensing and finger motion monitoring applications. *Nano Energy*, **2016**, 30, 450-459	17.1	116

5	MEMS Based Broadband Piezoelectric Ultrasonic Energy Harvester (PUEH) for Enabling Self-Powered Implantable Biomedical Devices. *Scientific Reports*, **2016**, 6, 24946	4.9	103
4	MEMS based piezoelectric ultrasonic energy harvester for self-powered under-water applications **2016**,		2
3	Investigation of geometric design in piezoelectric microelectromechanical systems diaphragms for ultrasonic energy harvesting. *Applied Physics Letters*, **2016**, 108, 193902	3.4	33
2	Piezoelectric MEMS Evolution from sensing technology to diversified applications in the 5G / Internet of Things (IoT) era. *Journal of Micromechanics and Microengineering*,	2	12
1	Progress of Advanced Devices and Internet of Things Systems as Enabling Technologies for Smart Homes and Health Care. *ACS Materials Au*,		3