

# Xiao Peng

## List of Publications by Year in descending order

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59  
papers

5,819  
citations

76326

40  
h-index

144013

57  
g-index

59  
all docs

59  
docs citations

59  
times ranked

3664  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fiber/Fabric-Based Piezoelectric and Triboelectric Nanogenerators for Flexible/Stretchable and Wearable Electronics and Artificial Intelligence. <i>Advanced Materials</i> , 2020, 32, e1902549.	21.0	826
2	A breathable, biodegradable, antibacterial, and self-powered electronic skin based on all-nanofiber triboelectric nanogenerators. <i>Science Advances</i> , 2020, 6, eaba9624.	10.3	589
3	A Stretchable Yarn Embedded Triboelectric Nanogenerator as Electronic Skin for Biomechanical Energy Harvesting and Multifunctional Pressure Sensing. <i>Advanced Materials</i> , 2018, 30, e1804944.	21.0	396
4	Shape adaptable and highly resilient 3D braided triboelectric nanogenerators as e-textiles for power and sensing. <i>Nature Communications</i> , 2020, 11, 2868.	12.8	285
5	Self-Powered Sensors and Systems Based on Nanogenerators. <i>Sensors</i> , 2020, 20, 2925.	3.8	195
6	A Triboelectric Nanogenerator-Based Smart Insole for Multifunctional Gait Monitoring. <i>Advanced Materials Technologies</i> , 2019, 4, 1800360.	5.8	181
7	Stretchable, Washable, and Ultrathin Triboelectric Nanogenerators as Skin-Like Highly Sensitive Self-Powered Haptic Sensors. <i>Advanced Functional Materials</i> , 2021, 31, .	14.9	155
8	Flexible and Stretchable Fiber-Shaped Triboelectric Nanogenerators for Biomechanical Monitoring and Human-Interactive Sensing. <i>Advanced Functional Materials</i> , 2021, 31, 2006679.	14.9	145
9	Flame-Retardant Textile-Based Triboelectric Nanogenerators for Fire Protection Applications. <i>ACS Nano</i> , 2020, 14, 15853-15863.	14.6	133
10	Advances in High-Performance Autonomous Energy and Self-Powered Sensing Textiles with Novel 3D Fabric Structures. <i>Advanced Materials</i> , 2022, 34, e2109355.	21.0	118
11	All-Nanofiber Self-Powered Skin-Interfaced Real-Time Respiratory Monitoring System for Obstructive Sleep Apnea-Hypopnea Syndrome Diagnosing. <i>Advanced Functional Materials</i> , 2021, 31, 2103559.	14.9	115
12	All-in-one 3D acceleration sensor based on coded liquid-metal triboelectric nanogenerator for vehicle restraint system. <i>Materials Today</i> , 2021, 43, 37-44.	14.2	113
13	Boosting the Solar Cell Efficiency by Flexo-photovoltaic Effect?. <i>ACS Nano</i> , 2019, 13, 12259-12267.	14.6	111
14	Rationally designed rotation triboelectric nanogenerators with much extended lifetime and durability. <i>Nano Energy</i> , 2020, 68, 104378.	16.0	111
15	UV-Protective, Self-Cleaning, and Antibacterial Nanofiber-Based Triboelectric Nanogenerators for Self-Powered Human Motion Monitoring. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 11205-11214.	8.0	111
16	A Dual-Mode Triboelectric Nanogenerator for Wind Energy Harvesting and Self-Powered Wind Speed Monitoring. <i>ACS Nano</i> , 2022, 16, 6244-6254.	14.6	111
17	A Triboelectric-Electromagnetic Hybrid Nanogenerator with Broadband Working Range for Wind Energy Harvesting and a Self-Powered Wind Speed Sensor. <i>ACS Energy Letters</i> , 0, , 1443-1452.	17.4	110
18	Self-Powered Multifunctional Motion Sensor Enabled by Magnetic-Regulated Triboelectric Nanogenerator. <i>ACS Nano</i> , 2018, 12, 5726-5733.	14.6	109

#	ARTICLE	IF	CITATIONS
19	Helical Fiber Strain Sensors Based on Triboelectric Nanogenerators for Self-Powered Human Respiratory Monitoring. ACS Nano, 2022, 16, 2811-2821.	14.6	102
20	Multifunctional Sensor Based on Translationalâ€“Rotary Triboelectric Nanogenerator. Advanced Energy Materials, 2019, 9, 1901124.	19.5	101
21	Fully Fabric-Based Triboelectric Nanogenerators as Self-Powered Humanâ€“Machine Interactive Keyboards. Nano-Micro Letters, 2021, 13, 103.	27.0	96
22	A Hybridized Triboelectricâ€“Electromagnetic Water Wave Energy Harvester Based on a Magnetic Sphere. ACS Nano, 2019, 13, 2349-2356.	14.6	92
23	Rational Structure Optimized Hybrid Nanogenerator for Highly Efficient Water Wave Energy Harvesting. Advanced Energy Materials, 2019, 9, 1802892.	19.5	92
24	A Hydrophobic Self-Repairing Power Textile for Effective Water Droplet Energy Harvesting. ACS Nano, 2021, 15, 18172-18181.	14.6	83
25	Sweatâ€“Permeable, Biodegradable, Transparent and Selfâ€“powered Chitosanâ€“Based Electronic Skin with Ultrathin Elastic Gold Nanofibers. Advanced Functional Materials, 2022, 32, .	14.9	80
26	TriboPump: A Lowâ€“Cost, Handâ€“Powered Water Disinfection System. Advanced Energy Materials, 2019, 9, 1901320.	19.5	74
27	An Openâ€“Environment Tactile Sensing System: Toward Simple and Efficient Material Identification. Advanced Materials, 2022, 34, e2203073.	21.0	72
28	Direct-Current Rotary-Tubular Triboelectric Nanogenerators Based on Liquid-Dielectrics Contact for Sustainable Energy Harvesting and Chemical Composition Analysis. ACS Nano, 2019, 13, 2587-2598.	14.6	66
29	Smart Wearable Sensors Based on Triboelectric Nanogenerator for Personal Healthcare Monitoring. Micromachines, 2021, 12, 352.	2.9	62
30	Actuation and sensor integrated self-powered cantilever system based on TENG technology. Nano Energy, 2019, 64, 103920.	16.0	60
31	Integrated All-Fiber Electronic Skin toward Self-Powered Sensing Sports Systems. ACS Applied Materials & Interfaces, 2021, 13, 50329-50337.	8.0	60
32	Electrohydrodynamic Jet Printing Driven by a Triboelectric Nanogenerator. Advanced Functional Materials, 2019, 29, 1901102.	14.9	59
33	Smart Textile Triboelectric Nanogenerators: Prospective Strategies for Improving Electricity Output Performance. Nanoenergy Advances, 2022, 2, 133-164.	7.7	59
34	High output direct-current power fabrics based on the air breakdown effect. Energy and Environmental Science, 2021, 14, 2460-2471.	30.8	58
35	A Power Supply of Self-Powered Online Monitoring Systems for Power Cords. IEEE Transactions on Energy Conversion, 2013, 28, 921-928.	5.2	54
36	A review on emerging biodegradable polymers for environmentally benign transient electronic skins. Journal of Materials Science, 2021, 56, 16765-16789.	3.7	49

#	ARTICLE	IF	CITATIONS
37	Self-Powered Smart Arm Training Band Sensor Based on Extremely Stretchable Hydrogel Conductors. ACS Applied Materials & Interfaces, 2021, 13, 44868-44877.	8.0	49
38	Energy Harvesting&Storage Bracelet Incorporating Electrochemical Microsupercapacitors Self&Charged from a Single Hand Gesture. Advanced Energy Materials, 2019, 9, 1900152.	19.5	47
39	Design Optimization of Soft&Contact Freestanding Rotary Triboelectric Nanogenerator for High&Output Performance. Advanced Energy Materials, 2021, 11, 2102106.	19.5	45
40	Note: High-efficiency broadband acoustic energy harvesting using Helmholtz resonator and dual piezoelectric cantilever beams. Review of Scientific Instruments, 2014, 85, 066103.	1.3	44
41	<scp>Large&scale</scp> fabrication of <scp>core&shell</scp> triboelectric braided fibers and power textiles for energy harvesting and plantar pressure monitoring. EcoMat, 2022, 4, .	11.9	44
42	Ultrathin Eardrum&Inspired Self&Powered Acoustic Sensor for Vocal Synchronization Recognition with the Assistance of Machine Learning. Small, 2022, 18, e2106960.	10.0	43
43	A wideband acoustic energy harvester using a three degree-of-freedom architecture. Applied Physics Letters, 2013, 103, .	3.3	36
44	Vibration-Driven Triboelectric Nanogenerator for Vibration Attenuation and Condition Monitoring for Transmission Lines. Nano Letters, 2022, 22, 5584-5591.	9.1	36
45	Dual-mode thermal-regulating and self-powered pressure sensing hybrid smart fibers. Chemical Engineering Journal, 2021, 420, 129650.	12.7	34
46	Triboelectric Nanogenerator Based on a Rotational Magnetic Ball for Harvesting Transmission Line Magnetic Energy. Advanced Functional Materials, 2022, 32, 2108827.	14.9	33
47	Industrial production of bionic scales knitting fabric-based triboelectric nanogenerator for outdoor rescue and human protection. Nano Energy, 2022, 97, 107168.	16.0	28
48	Enhanced acoustic wave localization effect using coupled sonic crystal resonators. Applied Physics Letters, 2014, 104, .	3.3	26
49	Scalable and washable 3D warp-knitted spacer power fabrics for energy harvesting and pressure sensing. Journal Physics D: Applied Physics, 2021, 54, 424006.	2.8	23
50	Enhanced Output of On&Body Direct&Current Power Textiles by Efficient Energy Management for Sustainable Working of Mobile Electronics. Advanced Energy Materials, 2022, 12, .	19.5	23
51	Significant tuning of band structures of magneto-mechanical phononic crystals using extraordinarily small magnetic fields. Applied Physics Letters, 2014, 105, 011904.	3.3	14
52	Hybrid Triboelectric&Electromagnetic Magnetic Energy Harvester&Based Sensing for Wireless Monitoring of Transmission Lines. Small, 2022, 18, .	10.0	14
53	A Skin&Inspired Triboelectric Nanogenerator with an Interpenetrating Structure for Motion Sensing and Energy Harvesting. Macromolecular Materials and Engineering, 2021, 306, 2100147.	3.6	13
54	Multi-Layer Extreme Learning Machine-Based Keystroke Dynamics Identification for Intelligent Keyboard. IEEE Sensors Journal, 2021, 21, 2324-2333.	4.7	10

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55	Ultrathin Stretchable All-Fiber Electronic Skin for Highly Sensitive Self-Powered Human Motion Monitoring. Nanoenergy Advances, 2022, 2, 52-63.	7.7	9
56	A self-powered and concealed sensor based on triboelectric nanogenerators for cultural-relic anti-theft systems. Nano Research, 2022, 15, 8435-8441.	10.4	9
57	Underwater Monitoring Networks Based on Cable-Structured Triboelectric Nanogenerators. Research, 2022, 2022, 9809406.	5.7	4
58	Influence of shape demagnetizing effect on piezomagnetic coefficient in magnetostrictive/piezoelectric laminate composite. , 2012, , .		1
59	Enhanced acoustoelectric coupling in acoustic energy harvester using dual helmholtz resonators. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, .	3.0	1