Yannan Xie

List of Publications by Citations

45 papers	5,021 citations	28 h-index	51 g-index
51 ext. papers	5,785 ext. citations	11 avg, IF	5.58 L-index

#	Paper	IF	Citations
45	Freestanding triboelectric-layer-based nanogenerators for harvesting energy from a moving object or human motion in contact and non-contact modes. *Advanced Materials*, **2014**, 26, 2818-24	24	549
44	Sliding-triboelectric nanogenerators based on in-plane charge-separation mechanism. *Nano Letters*, **2013**, 13, 2226-33	11.5	496
43	Triboelectric active sensor array for self-powered static and dynamic pressure detection and tactile imaging. *ACS Nano*, **2013**, 7, 8266-74	16.7	434
42	Maximum surface charge density for triboelectric nanogenerators achieved by ionized-air injection: methodology and theoretical understanding. *Advanced Materials*, **2014**, 26, 6720-8	24	368
41	Segmentally structured disk triboelectric nanogenerator for harvesting rotational mechanical energy. *Nano Letters*, **2013**, 13, 2916-23	11.5	368
40	Grating-structured freestanding triboelectric-layer nanogenerator for harvesting mechanical energy at 85% total conversion efficiency. *Advanced Materials*, **2014**, 26, 6599-607	24	337
39	Theory of freestanding triboelectric-layer-based nanogenerators. *Nano Energy*, **2015**, 12, 760-774	17.1	283
38	Rotary triboelectric nanogenerator based on a hybridized mechanism for harvesting wind energy. *ACS Nano*, **2013**, 7, 7119-25	16.7	263
37	Enhanced triboelectric nanogenerators and triboelectric nanosensor using chemically modified TiO2 nanomaterials. *ACS Nano*, **2013**, 7, 4554-60	16.7	222
36	Room-temperature deposition of transparent conducting Al-doped ZnO films by RF magnetron sputtering method. *Applied Surface Science*, **2009**, 255, 5669-5673	6.7	180
35	Robust triboelectric nanogenerator based on rolling electrification and electrostatic induction at an instantaneous energy conversion efficiency of ~ 55%. *ACS Nano*, **2015**, 9, 922-30	16.7	173
34	Noncontact free-rotating disk triboelectric nanogenerator as a sustainable energy harvester and self-powered mechanical sensor. *ACS Applied Materials & Interfaces*, **2014**, 6, 3031-8	9.5	168
33	Case-encapsulated triboelectric nanogenerator for harvesting energy from reciprocating sliding motion. *ACS Nano*, **2014**, 8, 3836-42	16.7	119
32	Motion charged battery as sustainable flexible-power-unit. *ACS Nano*, **2013**, 7, 11263-71	16.7	114
31	Self-powered thin-film motion vector sensor. *Nature Communications*, **2015**, 6, 8031	17.4	100
30	Multi-layered disk triboelectric nanogenerator for harvesting hydropower. *Nano Energy*, **2014**, 6, 129-136	17.1	86
29	Angle-shaped triboelectric nanogenerator for harvesting environmental wind energy. *Nano Energy*, **2019**, 56, 269-276	17.1	84

28	A flexible photo-thermoelectric nanogenerator based on MoS2/PU photothermal layer for infrared light harvesting. *Nano Energy*, **2018**, 49, 588-595	17.1	75
27	Enhanced photodegradation of methyl orange with TiO nanoparticles using a triboelectric nanogenerator. *Nanotechnology*, **2013**, 24, 295401	3.4	74
26	Highly porous piezoelectric PVDF membrane as effective lithium ion transfer channels for enhanced self-charging power cell. *Nano Energy*, **2015**, 14, 77-86	17.1	73
25	Self-powered triboelectric velocity sensor for dual-mode sensing of rectified linear and rotary motions. *Nano Energy*, **2014**, 10, 305-312	17.1	65
24	Growth and fabrication of sputtered TiO2 based ultraviolet detectors. *Applied Surface Science*, **2014** , 293, 248-254	6.7	40
23	Low-Dark-Current $hbox{TiO}_{2}$ MSM UV Photodetectors With Pt Schottky Contacts. *IEEE Electron Device Letters*, **2011**, 32, 530-532	4.4	36
22	Metal Semiconductor Metal Ultraviolet Photodetectors Based on $hbox{TiO}_{2}$ Films Deposited by Radio-Frequency Magnetron Sputtering. *IEEE Electron Device Letters*, **2010**, 31, 588-590	4.4	35
21	Seesaw structured triboelectric nanogenerator with enhanced output performance and its applications in self-powered motion sensing. *Nano Energy*, **2019**, 65, 103944	17.1	33
20	Flexible thermoelectric nanogenerator based on the MoS2/graphene nanocomposite and its application for a self-powered temperature sensor. *Semiconductor Science and Technology*, **2017**, 32, 044003	1.8	31
19	Low dark current metal-semiconductor-metal ultraviolet photodetectors based on sol-gel-derived TiO2 films. *Journal of Applied Physics*, **2011**, 109, 023114	2.5	31
18	A portable triboelectric spirometer for wireless pulmonary function monitoring. *Biosensors and Bioelectronics*, **2021**, 187, 113329	11.8	31
17	Stretchable and Wearable Triboelectric Nanogenerator Based on Kinesio Tape for Self-Powered Human Motion Sensing. *Nanomaterials*, **2018**, 8,	5.4	27
16	A 3D-printed acoustic triboelectric nanogenerator for quarter-wavelength acoustic energy harvesting and self-powered edge sensing. *Nano Energy*, **2021**, 85, 105962	17.1	24
15	Enhancement of bandgap emission of Pt-capped MgZnO films: important role of light extraction versus exciton-plasmon coupling. *Optics Express*, **2012**, 20, 14556-63	3.3	16
14	A Self-Powered Temperature Sensor Based on Silver Telluride Nanowires. *ECS Journal of Solid State Science and Technology*, **2017**, 6, N3055-N3057	2	15
13	Improvement of GaN light-emitting diodes with surface-treated Al-doped ZnO transparent Ohmic contacts by holographic photonic crystal. *Applied Physics A: Materials Science and Processing*, **2012**, 107, 809-812	2.6	10
12	A high-performance, solution-processable polymer/ceramic/ionic liquid electrolyte for room temperature solid-state Li metal batteries. *Nano Energy*, **2021**, 89, 106351	17.1	9
11	A wind vector detecting system based on triboelectric and photoelectric sensors for simultaneously monitoring wind speed and direction. *Nano Energy*, **2021**, 89, 106382	17.1	9

10	The construction of integrated Si-based micro proton exchange membrane fuel cells with improved performances. *Nano Energy*, **2019**, 61, 604-610	17.1	6
9	Temperature-dependent exciton luminescence from an Au-nanopatterned coated ZnCdO film. *Europhysics Letters*, **2012**, 99, 27003	1.6	6
8	Covalent interactions between carbon nanotubes and P3HT by thiol-ene click chemistry towards improved thermoelectric performance. *Materials Chemistry Frontiers*, **2020**, 4, 1174-1181	7.8	5
7	Selectivity of ion transport in narrow carbon nanotubes depends on the driving force due to drag or drive nature of their active hydration shells. *Journal of Chemical Physics*, **2021**, 154, 104707	3.9	5
6	Field enhanced photocatalytic disinfection. *Science Bulletin*, **2022**,	10.6	4
5	Beyond the Pore Size Limitation of a Nanoporous Graphene Monolayer Membrane for Water Desalination Assisted by an External Electric Field.. *Journal of Physical Chemistry Letters*, **2021**, 258-266	6.4	4
4	Nanoscale avalanche photodiode with self-quenching and ultrahigh ultraviolet/visible rejection ratio. *Optics Letters*, **2012**, 37, 3651-3	3	3
3	Confined lamellar channels structured by multilayer graphene for high-efficiency desalination. *Desalination*, **2022**, 530, 115681	10.3	3
2	A self-powered triboelectric multi-information motion monitoring sensor and its application in wireless real-time control. *Nano Energy*, **2022**, 97, 107150	17.1	3
1	High Temperature Annealing Amorphous Hydrogenated SiC Films for the Application as Window Layers in Si-Based Solar Cell. *Applied Mechanics and Materials*, **2013**, 401-403, 631-634	0.3	1