# Yannan Xie

## List of Publications by Year in Descending Order



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| 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 | Field enhanced photocatalytic disinfection. *Science Bulletin*, **2022**, | 10.6 | 4 |
| 44 | Confined lamellar channels structured by multilayer graphene for high-efficiency desalination. *Desalination*, **2022**, 530, 115681 | 10.3 | 3 |
| 43 | 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 |
| 42 | 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 |
| 41 | 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 |
| 40 | A portable triboelectric spirometer for wireless pulmonary function monitoring. *Biosensors and Bioelectronics*, **2021**, 187, 113329 | 11.8 | 31 |
| 39 | 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 |
| 38 | 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 |
| 37 | 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 |
| 36 | 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 |
| 35 | The construction of integrated Si-based micro proton exchange membrane fuel cells with improved performances. *Nano Energy*, **2019**, 61, 604-610 | 17.1 | 6 |
| 34 | Seesaw structured triboelectric nanogenerator with enhanced output performance and its applications in self-powered motion sensing. *Nano Energy*, **2019**, 65, 103944 | 17.1 | 33 |
| 33 | Angle-shaped triboelectric nanogenerator for harvesting environmental wind energy. *Nano Energy*, **2019**, 56, 269-276 | 17.1 | 84 |
| 32 | A flexible photo-thermoelectric nanogenerator based on MoS2/PU photothermal layer for infrared light harvesting. *Nano Energy*, **2018**, 49, 588-595 | 17.1 | 75 |
| 31 | Stretchable and Wearable Triboelectric Nanogenerator Based on Kinesio Tape for Self-Powered Human Motion Sensing. *Nanomaterials*, **2018**, 8, | 5.4 | 27 |
| 30 | A Self-Powered Temperature Sensor Based on Silver Telluride Nanowires. *ECS Journal of Solid State Science and Technology*, **2017**, 6, N3055-N3057 | 2 | 15 |
| 29 | 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 |

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|---|---|---|---|
| 28 | Theory of freestanding triboelectric-layer-based nanogenerators. *Nano Energy*, **2015**, 12, 760-774 | 17.1 | 283 |
| 27 | Self-powered thin-film motion vector sensor. *Nature Communications*, **2015**, 6, 8031 | 17.4 | 100 |
| 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 | 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 |
| 24 | Multi-layered disk triboelectric nanogenerator for harvesting hydropower. *Nano Energy*, **2014**, 6, 129-136 | 17.1 | 86 |
| 23 | Self-powered triboelectric velocity sensor for dual-mode sensing of rectified linear and rotary motions. *Nano Energy*, **2014**, 10, 305-312 | 17.1 | 65 |
| 22 | Case-encapsulated triboelectric nanogenerator for harvesting energy from reciprocating sliding motion. *ACS Nano*, **2014**, 8, 3836-42 | 16.7 | 119 |
| 21 | 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 |
| 20 | 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 |
| 19 | Grating-structured freestanding triboelectric-layer nanogenerator for harvesting mechanical energy at 85% total conversion efficiency. *Advanced Materials*, **2014**, 26, 6599-607 | 24 | 337 |
| 18 | Maximum surface charge density for triboelectric nanogenerators achieved by ionized-air injection: methodology and theoretical understanding. *Advanced Materials*, **2014**, 26, 6720-8 | 24 | 368 |
| 17 | Growth and fabrication of sputtered TiO2 based ultraviolet detectors. *Applied Surface Science*, **2014** , 293, 248-254 | 6.7 | 40 |
| 16 | Sliding-triboelectric nanogenerators based on in-plane charge-separation mechanism. *Nano Letters*, **2013**, 13, 2226-33 | 11.5 | 496 |
| 15 | Triboelectric active sensor array for self-powered static and dynamic pressure detection and tactile imaging. *ACS Nano*, **2013**, 7, 8266-74 | 16.7 | 434 |
| 14 | Enhanced photodegradation of methyl orange with TiO□nanoparticles using a triboelectric nanogenerator. *Nanotechnology*, **2013**, 24, 295401 | 3.4 | 74 |
| 13 | Motion charged battery as sustainable flexible-power-unit. *ACS Nano*, **2013**, 7, 11263-71 | 16.7 | 114 |
| 12 | Enhanced triboelectric nanogenerators and triboelectric nanosensor using chemically modified TiO2 nanomaterials. *ACS Nano*, **2013**, 7, 4554-60 | 16.7 | 222 |
| 11 | Rotary triboelectric nanogenerator based on a hybridized mechanism for harvesting wind energy. *ACS Nano*, **2013**, 7, 7119-25 | 16.7 | 263 |

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|---|---|---|---|
| 10 | Segmentally structured disk triboelectric nanogenerator for harvesting rotational mechanical energy. *Nano Letters*, **2013**, 13, 2916-23 | 11.5 | 368 |
| 9 | 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 |
| 8 | Temperature-dependent exciton luminescence from an Au-nanopatterned coated ZnCdO film. *Europhysics Letters*, **2012**, 99, 27003 | 1.6 | 6 |
| 7 | 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 |
| 6 | Nanoscale avalanche photodiode with self-quenching and ultrahigh ultraviolet/visible rejection ratio. *Optics Letters*, **2012**, 37, 3651-3 | 3 | 3 |
| 5 | 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 |
| 4 | Low-Dark-Current $hbox{TiO}_{2}$ MSM UV Photodetectors With Pt Schottky Contacts. *IEEE Electron Device Letters*, **2011**, 32, 530-532 | 4.4 | 36 |
| 3 | 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 |
| 2 | 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 |
| 1 | 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 |