# Yunlong Zi

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 126 papers | 9,744 citations | 47 h-index | 98 g-index |
| 137 ext. papers | 11,629 ext. citations | 12.1 avg, IF | 6.54 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 126 | Solvent-free adhesive ionic elastomer for multifunctional stretchable electronics. *Nano Energy*, **2022**, 91, 106611 | 17.1 | 7 |
| 125 | Fluorinated PEEK and XLPE as Promising Insulation Candidates for the Propulsion System of All-electric Aircraft. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2022**, 1-1 | 2.3 | |
| 124 | A method for quantitatively separating the piezoelectric component from the as-received "Piezoelectric" signal.. *Nature Communications*, **2022**, 13, 1391 | 17.4 | 8 |
| 123 | Tribophotonics: An emerging self-powered wireless solution toward smart city. *Nano Energy*, **2022**, 97, 107196 | 17.1 | 1 |
| 122 | Underwater Self-Powered All-Optical Wireless Ultrasonic Sensing, Positioning and Communication with Ultrafast Response Time and Ultrahigh Sensitivity. *Advanced Optical Materials*, **2022**, 10, 2102091 | 8.1 | 4 |
| 121 | Insulator Surface Charge Behaviors: From Hazards to Functionality. *IEEE Electrical Insulation Magazine*, **2022**, 38, 6-14 | 2.1 | 2 |
| 120 | Multi-Mode Water-Tube-Based Triboelectric Nanogenerator Designed for Low-Frequency Energy Harvesting with Ultrahigh Volumetric Charge Density. *Advanced Energy Materials*, **2021**, 11, 2100038 | 21.8 | 34 |
| 119 | Tribo-Induced Smart Reflector for Ultrasensitive Self-Powered Wireless Sensing of Air Flow. *ACS Applied Materials & Interfaces*, **2021**, 13, 21450-21458 | 9.5 | 4 |
| 118 | Tribo-Induced Color Tuner toward Smart Lighting and Self-Powered Wireless Sensing. *Advanced Science*, **2021**, 8, 2004970 | 13.6 | 4 |
| 117 | Recent progress of triboelectrification-induced electroluminescence: from fundaments to applications. *JPhys Materials*, **2021**, 4, 042001 | 4.2 | 1 |
| 116 | Self-powered, ultrasensitive, and high-resolution visualized flexible pressure sensor based on color-tunable triboelectrification-induced electroluminescence. *Nano Energy*, **2021**, 79, 105431 | 17.1 | 29 |
| 115 | A fully self-powered, ultra-stable cholesteric smart window triggered by instantaneous mechanical stimuli. *Nano Energy*, **2021**, 85, 105976 | 17.1 | 10 |
| 114 | Tribo-charge enhanced hybrid air filter masks for efficient particulate matter capture with greatly extended service life. *Nano Energy*, **2021**, 85, 106015 | 17.1 | 11 |
| 113 | Design of a broadband piezoelectric energy harvester with piecewise nonlinearity. *Smart Materials and Structures*, **2021**, 30, 085040 | 3.4 | 3 |
| 112 | Direct ink writing of fluoropolymer/CNT-based superhydrophobic and corrosion-resistant electrodes for droplet energy harvesters and self-powered electronic skins. *Nano Energy*, **2021**, 86, 106095 | 17.1 | 9 |
| 111 | A paradigm shift fully self-powered long-distance wireless sensing solution enabled by discharge-induced displacement current. *Science Advances*, **2021**, 7, eabi6751 | 14.3 | 8 |
| 110 | Achieving ultrahigh instantaneous power density of 10 MW/m by leveraging the opposite-charge-enhanced transistor-like triboelectric nanogenerator (OCT-TENG). *Nature Communications*, **2021**, 12, 5470 | 17.4 | 33 |

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|---|---|---|---|
| 109 | Boosting current output of triboelectric nanogenerator by two orders of magnitude via hindering interfacial charge recombination. *Nano Energy*, **2021**, 89, 106315 | 17.1 | 2 |
| 108 | Femtoamp and picoamp modes of electrospray and paper spray ionization. *International Journal of Mass Spectrometry*, **2021**, 469, 116696 | 1.9 | 2 |
| 107 | Complete Prevention of Contact Electrification by Molecular Engineering. *Matter*, **2021**, 4, 290-301 | 12.7 | 7 |
| 106 | Boosting the Output Performance of the Triboelectric Nanogenerator through the Nonlinear Oscillator. *ACS Applied Materials & Interfaces*, **2021**, 13, 6331-6338 | 9.5 | 9 |
| 105 | Fully Biodegradable Water Droplet Energy Harvester Based on Leaves of Living Plants. *ACS Applied Materials & Interfaces*, **2020**, 12, 56060-56067 | 9.5 | 23 |
| 104 | A coplanar-electrode direct-current triboelectric nanogenerator with facile fabrication and stable output. *EcoMat*, **2020**, 2, e12037 | 9.4 | 16 |
| 103 | Employing a MEMS plasma switch for conditioning high-voltage kinetic energy harvesters. *Nature Communications*, **2020**, 11, 3221 | 17.4 | 30 |
| 102 | Normally Transparent Tribo-Induced Smart Window. *ACS Nano*, **2020**, 14, 3630-3639 | 16.7 | 39 |
| 101 | Inductor-Free Output Multiplier for Power Promotion and Management of Triboelectric Nanogenerators toward Self-Powered Systems. *ACS Applied Materials & Interfaces*, **2020**, 12, 5892-5900 | 9.5 | 19 |
| 100 | Recent progress on flexible nanogenerators toward self-powered systems. *Informa□□Materi□*, **2020**, 2, 318-340 | 23.1 | 43 |
| 99 | Multifunctional Self-Powered Switch toward Delay-Characteristic Sensors. *ACS Applied Materials & Interfaces*, **2020**, 12, 22873-22880 | 9.5 | 10 |
| 98 | Thin, Skin-Integrated, Stretchable Triboelectric Nanogenerators for Tactile Sensing. *Advanced Electronic Materials*, **2020**, 6, 1901174 | 6.4 | 32 |
| 97 | Robust Power Textile Based on Triboelectrification for Self-Powered Smart Textiles. *IEEE Open Journal of Nanotechnology*, **2020**, 1, 95-99 | 2.1 | 2 |
| 96 | Carbon Dot-Based Composite Films for Simultaneously Harvesting Raindrop Energy and Boosting Solar Energy Conversion Efficiency in Hybrid Cells. *ACS Nano*, **2020**, 14, 10359-10369 | 16.7 | 23 |
| 95 | Achieving Ultrahigh Output Energy Density of Triboelectric Nanogenerators in High-Pressure Gas Environment. *Advanced Science*, **2020**, 7, 2001757 | 13.6 | 23 |
| 94 | A metal-electrode-free, fully integrated, soft triboelectric sensor array for self-powered tactile sensing. *Microsystems and Nanoengineering*, **2020**, 6, 59 | 7.7 | 22 |
| 93 | Recent advances of triboelectric nanogenerator based applications in biomedical systems. *EcoMat*, **2020**, 2, e12049 | 9.4 | 17 |
| 92 | On the material-dependent charge transfer mechanism of the contact electrification. *Nano Energy*, **2020**, 78, 105343 | 17.1 | 12 |

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| 91 | Self-powered electrowetting optical switch driven by a triboelectric nanogenerator for wireless sensing. *Nano Energy*, **2019**, 66, 104140 | 17.1 | 24 |
| 90 | A universal standardized method for output capability assessment of nanogenerators. *Nature Communications*, **2019**, 10, 4428 | 17.4 | 53 |
| 89 | Capturing Flow Energy from Ocean and Wind. *Energies*, **2019**, 12, 2184 | 3.1 | 27 |
| 88 | Effects of Metal Work Function and Contact Potential Difference on Electron Thermionic Emission in Contact Electrification. *Advanced Functional Materials*, **2019**, 29, 1903142 | 15.6 | 50 |
| 87 | Direct lift-off and the piezo-phototronic study of InGaN/GaN heterostructure membrane. *Nano Energy*, **2019**, 59, 545-552 | 17.1 | 20 |
| 86 | Electrohydrodynamic Jet Printing Driven by a Triboelectric Nanogenerator. *Advanced Functional Materials*, **2019**, 29, 1901102 | 15.6 | 39 |
| 85 | On the force and energy conversion in triboelectric nanogenerators. *Nano Energy*, **2019**, 59, 154-161 | 17.1 | 33 |
| 84 | A universal method for quantitative analysis of triboelectric nanogenerators. *Journal of Materials Chemistry A*, **2019**, 7, 19485-19494 | 13 | 16 |
| 83 | Actuation and sensor integrated self-powered cantilever system based on TENG technology. *Nano Energy*, **2019**, 64, 103920 | 17.1 | 40 |
| 82 | Skin-Integrated Graphene-Embedded Lead Zirconate Titanate Rubber for Energy Harvesting and Mechanical Sensing. *Advanced Materials Technologies*, **2019**, 4, 1900744 | 6.8 | 34 |
| 81 | On the Maximal Output Energy Density of Nanogenerators. *ACS Nano*, **2019**, 13, 13257-13263 | 16.7 | 24 |
| 80 | High-voltage applications of the triboelectric nanogenerator: Opportunities brought by the unique energy technology. *MRS Energy & Sustainability*, **2019**, 6, 1 | 2.2 | 12 |
| 79 | A fully-packaged ship-shaped hybrid nanogenerator for blue energy harvesting toward seawater self-desalination and self-powered positioning. *Nano Energy*, **2019**, 57, 616-624 | 17.1 | 70 |
| 78 | Standardization of triboelectric nanogenerators: Progress and perspectives. *Nano Energy*, **2019**, 56, 40-55 | 17.1 | 30 |
| 77 | A novel triboelectric nanogenerator based on electrospun polyvinylidene fluoride nanofibers for effective acoustic energy harvesting and self-powered multifunctional sensing. *Nano Energy*, **2019**, 56, 241-251 | 17.1 | 105 |
| 76 | On the Electron-Transfer Mechanism in the Contact-Electrification Effect. *Advanced Materials*, **2018**, 30, e1706790 | 24 | 263 |
| 75 | Concurrent Harvesting of Ambient Energy by Hybrid Nanogenerators for Wearable Self-Powered Systems and Active Remote Sensing. *ACS Applied Materials & Interfaces*, **2018**, 10, 14708-14715 | 9.5 | 55 |
| 74 | Field Emission of Electrons Powered by a Triboelectric Nanogenerator. *Advanced Functional Materials*, **2018**, 28, 1800610 | 15.6 | 32 |

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| 73 | Keystroke dynamics enabled authentication and identification using triboelectric nanogenerator array. *Materials Today*, **2018**, 21, 216-222 | 21.8 | 122 |
| 72 | High-Output Lead-Free Flexible Piezoelectric Generator Using Single-Crystalline GaN Thin Film. *ACS Applied Materials & Interfaces*, **2018**, 10, 12839-12846 | 9.5 | 40 |
| 71 | Self-powered wireless optical transmission of mechanical agitation signals. *Nano Energy*, **2018**, 47, 566-572 | 17.1 | 45 |
| 70 | Toward self-powered photodetection enabled by triboelectric nanogenerators. *Journal of Materials Chemistry C*, **2018**, 6, 11893-11902 | 7.1 | 32 |
| 69 | Raising the Working Temperature of a Triboelectric Nanogenerator by Quenching Down Electron Thermionic Emission in Contact-Electrification. *Advanced Materials*, **2018**, 30, e1803968 | 24 | 116 |
| 68 | High Energy Storage Efficiency Triboelectric Nanogenerators with Unidirectional Switches and Passive Power Management Circuits. *Advanced Functional Materials*, **2018**, 28, 1805216 | 15.6 | 127 |
| 67 | A Hierarchically Nanostructured Cellulose Fiber-Based Triboelectric Nanogenerator for Self-Powered Healthcare Products. *Advanced Functional Materials*, **2018**, 28, 1805540 | 15.6 | 104 |
| 66 | Triboelectric microplasma powered by mechanical stimuli. *Nature Communications*, **2018**, 9, 3733 | 17.4 | 137 |
| 65 | Triboelectric Nanogenerator (TENG) Mass Spectrometry of Falsified Antimalarials. *Rapid Communications in Mass Spectrometry*, **2018**, 32, 1585 | 2.2 | 9 |
| 64 | A washable, stretchable, and self-powered human-machine interfacing Triboelectric nanogenerator for wireless communications and soft robotics pressure sensor arrays. *Extreme Mechanics Letters*, **2017**, 13, 25-35 | 3.9 | 61 |
| 63 | Understanding Self-Catalyzed Epitaxial Growth of III-V Nanowires toward Controlled Synthesis. *Nano Letters*, **2017**, 17, 1167-1173 | 11.5 | 11 |
| 62 | Sustainable Energy Source for Wearable Electronics Based on Multilayer Elastomeric Triboelectric Nanogenerators. *Advanced Energy Materials*, **2017**, 7, 1602832 | 21.8 | 104 |
| 61 | Multifunctional TENG for Blue Energy Scavenging and Self-Powered Wind-Speed Sensor. *Advanced Energy Materials*, **2017**, 7, 1602397 | 21.8 | 196 |
| 60 | Triboelectric nanogenerators for sensitive nano-coulomb molecular mass spectrometry. *Nature Nanotechnology*, **2017**, 12, 481-487 | 28.7 | 183 |
| 59 | Ultralight Cut-Paper-Based Self-Charging Power Unit for Self-Powered Portable Electronic and Medical Systems. *ACS Nano*, **2017**, 11, 4475-4482 | 16.7 | 164 |
| 58 | Auxetic Foam-Based Contact-Mode Triboelectric Nanogenerator with Highly Sensitive Self-Powered Strain Sensing Capabilities to Monitor Human Body Movement. *Advanced Functional Materials*, **2017**, 27, 1606695 | 15.6 | 110 |
| 57 | Simultaneously Enhancing Light Emission and Suppressing Efficiency Droop in GaN Microwire-Based Ultraviolet Light-Emitting Diode by the Piezo-Phototronic Effect. *Nano Letters*, **2017**, 17, 3718-3724 | 11.5 | 44 |
| 56 | Maximized Effective Energy Output of Contact-Separation-Triggered Triboelectric Nanogenerators as Limited by Air Breakdown. *Advanced Functional Materials*, **2017**, 27, 1700049 | 15.6 | 90 |

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| 55 | High efficient harvesting of underwater ultrasonic wave energy by triboelectric nanogenerator. *Nano Energy*, **2017**, 38, 101-108 | 17.1 | 102 |
| 54 | Nanogenerators: An emerging technology towards nanoenergy. *APL Materials*, **2017**, 5, 074103 | 5.7 | 121 |
| 53 | Self-Powered Wireless Sensor Node Enabled by a Duck-Shaped Triboelectric Nanogenerator for Harvesting Water Wave Energy. *Advanced Energy Materials*, **2017**, 7, 1601705 | 21.8 | 139 |
| 52 | A spring-based resonance coupling for hugely enhancing the performance of triboelectric nanogenerators for harvesting low-frequency vibration energy. *Nano Energy*, **2017**, 32, 287-293 | 17.1 | 124 |
| 51 | A Highly Stretchable Fiber-Based Triboelectric Nanogenerator for Self-Powered Wearable Electronics. *Advanced Functional Materials*, **2017**, 27, 1604378 | 15.6 | 230 |
| 50 | An inductor-free auto-power-management design built-in triboelectric nanogenerators. *Nano Energy*, **2017**, 31, 302-310 | 17.1 | 85 |
| 49 | 3D Orthogonal Woven Triboelectric Nanogenerator for Effective Biomechanical Energy Harvesting and as Self-Powered Active Motion Sensors. *Advanced Materials*, **2017**, 29, 1702648 | 24 | 225 |
| 48 | An ultrathin paper-based self-powered system for portable electronics and wireless human-machine interaction. *Nano Energy*, **2017**, 39, 328-336 | 17.1 | 107 |
| 47 | Piezo-Phototronic Effect on Selective Electron or Hole Transport through Depletion Region of Vis-NIR Broadband Photodiode. *Advanced Materials*, **2017**, 29, 1701412 | 24 | 62 |
| 46 | Triboelectric Nanogenerator: Single-Electrode Mode. *Green Energy and Technology*, **2016**, 91-107 | 0.6 | 9 |
| 45 | Triboelectric Nanogenerator: Lateral Sliding Mode. *Green Energy and Technology*, **2016**, 49-90 | 0.6 | 7 |
| 44 | Harvesting Wind Energy. *Green Energy and Technology*, **2016**, 259-282 | 0.6 | |
| 43 | Self-powered Sensing for Chemical and Environmental Detection. *Green Energy and Technology*, **2016**, 469-489 | 0.6 | |
| 42 | Harvesting Large-Scale Blue Energy. *Green Energy and Technology*, **2016**, 283-306 | 0.6 | 2 |
| 41 | Triboelectric Nanogenerators. *Green Energy and Technology*, **2016**, | 0.6 | 126 |
| 40 | All-in-One Shape-Adaptive Self-Charging Power Package for Wearable Electronics. *ACS Nano*, **2016**, 10, 10580-10588 | 16.7 | 230 |
| 39 | Self-powered textile for wearable electronics by hybridizing fiber-shaped nanogenerators, solar cells, and supercapacitors. *Science Advances*, **2016**, 2, e1600097 | 14.3 | 558 |
| 38 | Effective energy storage from a triboelectric nanogenerator. *Nature Communications*, **2016**, 7, 10987 | 17.4 | 310 |

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| 37 | A highly shape-adaptive, stretchable design based on conductive liquid for energy harvesting and self-powered biomechanical monitoring. *Science Advances*, **2016**, 2, e1501624 | 14.3 | 221 |
| 36 | Sustainably powering wearable electronics solely by biomechanical energy. *Nature Communications*, **2016**, 7, 12744 | 17.4 | 392 |
| 35 | All-Plastic-Materials Based Self-Charging Power System Composed of Triboelectric Nanogenerators and Supercapacitors. *Advanced Functional Materials*, **2016**, 26, 1070-1076 | 15.6 | 152 |
| 34 | Harvesting Broad Frequency Band Blue Energy by a Triboelectric-Electromagnetic Hybrid Nanogenerator. *ACS Nano*, **2016**, 10, 6526-34 | 16.7 | 184 |
| 33 | Excluding Contact Electrification in Surface Potential Measurement Using Kelvin Probe Force Microscopy. *ACS Nano*, **2016**, 10, 2528-35 | 16.7 | 44 |
| 32 | Molecular surface functionalization to enhance the power output of triboelectric nanogenerators. *Journal of Materials Chemistry A*, **2016**, 4, 3728-3734 | 13 | 177 |
| 31 | Self-Powered Electrochemical Synthesis of Polypyrrole from the Pulsed Output of a Triboelectric Nanogenerator as a Sustainable Energy System. *Advanced Functional Materials*, **2016**, 26, 3542-3548 | 15.6 | 75 |
| 30 | A Water-Proof Triboelectric-Electromagnetic Hybrid Generator for Energy Harvesting in Harsh Environments. *Advanced Energy Materials*, **2016**, 6, 1501593 | 21.8 | 193 |
| 29 | Harvesting Low-Frequency (. *ACS Nano*, **2016**, 10, 4797-805 | 16.7 | 419 |
| 28 | Triboelectrification. *Green Energy and Technology*, **2016**, 1-19 | 0.6 | 8 |
| 27 | Hybrid Cell Composed of Triboelectric Nanogenerator. *Green Energy and Technology*, **2016**, 307-350 | 0.6 | 0 |
| 26 | Applications in Self-powered Systems and Processes. *Green Energy and Technology*, **2016**, 351-398 | 0.6 | 3 |
| 25 | Self-powered Sensing for Human-Machine Interface. *Green Energy and Technology*, **2016**, 401-429 | 0.6 | 1 |
| 24 | Self-powered Sensing for Vibration and Biomedical Monitoring. *Green Energy and Technology*, **2016**, 431-454 | 0.6 | 2 |
| 23 | Self-powered Sensing for Tracking Moving Objects. *Green Energy and Technology*, **2016**, 455-467 | 0.6 | 0 |
| 22 | Triboelectric Nanogenerator: Vertical Contact-Separation Mode. *Green Energy and Technology*, **2016**, 23-47 | 0.6 | 25 |
| 21 | Triboelectric Nanogenerator: Freestanding Triboelectric-Layer Mode. *Green Energy and Technology*, **2016**, 109-153 | 0.6 | 8 |
| 20 | Theoretical Modeling of Triboelectric Nanogenerators. *Green Energy and Technology*, **2016**, 155-183 | 0.6 | 4 |

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| 19 | Figure-of-Merits for Quantifying Triboelectric Nanogenerators. *Green Energy and Technology*, **2016**, 185-204 | 2.4 | 2 |
| 18 | Harvesting Body Motion Energy. *Green Energy and Technology*, **2016**, 207-236 | 0.6 | 0 |
| 17 | Harvesting Vibration Energy. *Green Energy and Technology*, **2016**, 237-257 | 0.6 | |
| 16 | All-Elastomer-Based Triboelectric Nanogenerator as a Keyboard Cover To Harvest Typing Energy. *ACS Nano*, **2016**, 10, 7973-81 | 16.7 | 72 |
| 15 | Figures-of-Merit for Rolling-Friction-Based Triboelectric Nanogenerators. *Advanced Materials Technologies*, **2016**, 1, 1600017 | 6.8 | 24 |
| 14 | Networks of triboelectric nanogenerators for harvesting water wave energy: a potential approach toward blue energy. *ACS Nano*, **2015**, 9, 3324-31 | 16.7 | 419 |
| 13 | Fabrication of Sub-25 nm Diameter GaSb Nanopillar Arrays by Nanoscale Self-Mask Effect. *Nano Letters*, **2015**, 15, 4993-5000 | 11.5 | 8 |
| 12 | Largely Improving the Robustness and Lifetime of Triboelectric Nanogenerators through Automatic Transition between Contact and Noncontact Working States. *ACS Nano*, **2015**, 9, 7479-87 | 16.7 | 73 |
| 11 | Triboelectric-pyroelectric-piezoelectric hybrid cell for high-efficiency energy-harvesting and self-powered sensing. *Advanced Materials*, **2015**, 27, 2340-7 | 24 | 331 |
| 10 | Stretchable-Rubber-Based Triboelectric Nanogenerator and Its Application as Self-Powered Body Motion Sensors. *Advanced Functional Materials*, **2015**, 25, 3688-3696 | 15.6 | 261 |
| 9 | Standards and figure-of-merits for quantifying the performance of triboelectric nanogenerators. *Nature Communications*, **2015**, 6, 8376 | 17.4 | 470 |
| 8 | A flexible, stretchable and shape-adaptive approach for versatile energy conversion and self-powered biomedical monitoring. *Advanced Materials*, **2015**, 27, 3817-24 | 24 | 199 |
| 7 | A Flexible Fiber-Based Supercapacitor-Triboelectric-Nanogenerator Power System for Wearable Electronics. *Advanced Materials*, **2015**, 27, 4830-6 | 24 | 276 |
| 6 | Current and Noise Properties of InAs Nanowire Transistors With Asymmetric Contacts Induced by Gate Overlap. *IEEE Transactions on Electron Devices*, **2014**, 61, 884-889 | 2.9 | 9 |
| 5 | . *IEEE Transactions on Electron Devices*, **2013**, 60, 2900-2905 | 2.9 | 19 |
| 4 | Understanding self-aligned planar growth of InAs nanowires. *Nano Letters*, **2013**, 13, 2786-91 | 11.5 | 41 |
| 3 | Understanding the impact of Schottky barriers on the performance of narrow bandgap nanowire field effect transistors. *Nano Letters*, **2012**, 12, 5331-6 | 11.5 | 47 |
| 2 | Synthesis of antimony-based nanowires using the simple vapor deposition method. *ChemPhysChem*, **2012**, 13, 2585-8 | 3.2 | 11 |

# List of Publications

1 A fully self-powered, natural-light-enabled fiber-optic vibration sensing solution. *SusMat*, 1