Yunlong Zi

List of Publications by Citations

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	Self-powered textile for wearable electronics by hybridizing fiber-shaped nanogenerators, solar cells, and supercapacitors. *Science Advances*, **2016**, 2, e1600097	14.3	558
125	Standards and figure-of-merits for quantifying the performance of triboelectric nanogenerators. *Nature Communications*, **2015**, 6, 8376	17.4	470
124	Networks of triboelectric nanogenerators for harvesting water wave energy: a potential approach toward blue energy. *ACS Nano*, **2015**, 9, 3324-31	16.7	419
123	Harvesting Low-Frequency (. *ACS Nano*, **2016**, 10, 4797-805	16.7	419
122	Sustainably powering wearable electronics solely by biomechanical energy. *Nature Communications*, **2016**, 7, 12744	17.4	392
121	Triboelectric-pyroelectric-piezoelectric hybrid cell for high-efficiency energy-harvesting and self-powered sensing. *Advanced Materials*, **2015**, 27, 2340-7	24	331
120	Effective energy storage from a triboelectric nanogenerator. *Nature Communications*, **2016**, 7, 10987	17.4	310
119	A Flexible Fiber-Based Supercapacitor-Triboelectric-Nanogenerator Power System for Wearable Electronics. *Advanced Materials*, **2015**, 27, 4830-6	24	276
118	On the Electron-Transfer Mechanism in the Contact-Electrification Effect. *Advanced Materials*, **2018** , 30, e1706790	24	263
117	Stretchable-Rubber-Based Triboelectric Nanogenerator and Its Application as Self-Powered Body Motion Sensors. *Advanced Functional Materials*, **2015**, 25, 3688-3696	15.6	261
116	A Highly Stretchable Fiber-Based Triboelectric Nanogenerator for Self-Powered Wearable Electronics. *Advanced Functional Materials*, **2017**, 27, 1604378	15.6	230
115	All-in-One Shape-Adaptive Self-Charging Power Package for Wearable Electronics. *ACS Nano*, **2016**, 10, 10580-10588	16.7	230
114	3D Orthogonal Woven Triboelectric Nanogenerator for Effective Biomechanical Energy Harvesting and as Self-Powered Active Motion Sensors. *Advanced Materials*, **2017**, 29, 1702648	24	225
113	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
112	A flexible, stretchable and shape-adaptive approach for versatile energy conversion and self-powered biomedical monitoring. *Advanced Materials*, **2015**, 27, 3817-24	24	199
111	Multifunctional TENG for Blue Energy Scavenging and Self-Powered Wind-Speed Sensor. *Advanced Energy Materials*, **2017**, 7, 1602397	21.8	196
110	A Water-Proof Triboelectric-Electromagnetic Hybrid Generator for Energy Harvesting in Harsh Environments. *Advanced Energy Materials*, **2016**, 6, 1501593	21.8	193

109	Harvesting Broad Frequency Band Blue Energy by a Triboelectric-Electromagnetic Hybrid Nanogenerator. *ACS Nano*, **2016**, 10, 6526-34	16.7	184
108	Triboelectric nanogenerators for sensitive nano-coulomb molecular mass spectrometry. *Nature Nanotechnology*, **2017**, 12, 481-487	28.7	183
107	Molecular surface functionalization to enhance the power output of triboelectric nanogenerators. *Journal of Materials Chemistry A*, **2016**, 4, 3728-3734	13	177
106	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
105	All-Plastic-Materials Based Self-Charging Power System Composed of Triboelectric Nanogenerators and Supercapacitors. *Advanced Functional Materials*, **2016**, 26, 1070-1076	15.6	152
104	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
103	Triboelectric microplasma powered by mechanical stimuli. *Nature Communications*, **2018**, 9, 3733	17.4	137
102	High Energy Storage Efficiency Triboelectric Nanogenerators with Unidirectional Switches and Passive Power Management Circuits. *Advanced Functional Materials*, **2018**, 28, 1805216	15.6	127
101	Triboelectric Nanogenerators. *Green Energy and Technology*, **2016**,	0.6	126
100	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
99	Keystroke dynamics enabled authentication and identification using triboelectric nanogenerator array. *Materials Today*, **2018**, 21, 216-222	21.8	122
98	Nanogenerators: An emerging technology towards nanoenergy. *APL Materials*, **2017**, 5, 074103	5.7	121
97	Raising the Working Temperature of a Triboelectric Nanogenerator by Quenching Down Electron Thermionic Emission in Contact-Electrification. *Advanced Materials*, **2018**, 30, e1803968	24	116
96	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
95	An ultrathin paper-based self-powered system for portable electronics and wireless human-machine interaction. *Nano Energy*, **2017**, 39, 328-336	17.1	107
94	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
93	Sustainable Energy Source for Wearable Electronics Based on Multilayer Elastomeric Triboelectric Nanogenerators. *Advanced Energy Materials*, **2017**, 7, 1602832	21.8	104
92	A Hierarchically Nanostructured Cellulose Fiber-Based Triboelectric Nanogenerator for Self-Powered Healthcare Products. *Advanced Functional Materials*, **2018**, 28, 1805540	15.6	104

91	High efficient harvesting of underwater ultrasonic wave energy by triboelectric nanogenerator. *Nano Energy*, **2017**, 38, 101-108	17.1	102
90	Maximized Effective Energy Output of Contact-Separation-Triggered Triboelectric Nanogenerators as Limited by Air Breakdown. *Advanced Functional Materials*, **2017**, 27, 1700049	15.6	90
89	An inductor-free auto-power-management design built-in triboelectric nanogenerators. *Nano Energy*, **2017**, 31, 302-310	17.1	85
88	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
87	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
86	All-Elastomer-Based Triboelectric Nanogenerator as a Keyboard Cover To Harvest Typing Energy. *ACS Nano*, **2016**, 10, 7973-81	16.7	72
85	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
84	Piezo-Phototronic Effect on Selective Electron or Hole Transport through Depletion Region of Vis-NIR Broadband Photodiode. *Advanced Materials*, **2017**, 29, 1701412	24	62
83	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
82	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
81	A universal standardized method for output capability assessment of nanogenerators. *Nature Communications*, **2019**, 10, 4428	17.4	53
80	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
79	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
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76	Excluding Contact Electrification in Surface Potential Measurement Using Kelvin Probe Force Microscopy. *ACS Nano*, **2016**, 10, 2528-35	16.7	44
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74	Understanding self-aligned planar growth of InAs nanowires. *Nano Letters*, **2013**, 13, 2786-91	11.5	41

73	High-Output Lead-Free Flexible Piezoelectric Generator Using Single-Crystalline GaN Thin Film. *ACS Applied Materials & Interfaces*, **2018**, 10, 12839-12846	9.5	40
72	Actuation and sensor integrated self-powered cantilever system based on TENG technology. *Nano Energy*, **2019**, 64, 103920	17.1	40
71	Electrohydrodynamic Jet Printing Driven by a Triboelectric Nanogenerator. *Advanced Functional Materials*, **2019**, 29, 1901102	15.6	39
70	Normally Transparent Tribo-Induced Smart Window. *ACS Nano*, **2020**, 14, 3630-3639	16.7	39
69	Skin-Integrated Graphene-Embedded Lead Zirconate Titanate Rubber for Energy Harvesting and Mechanical Sensing. *Advanced Materials Technologies*, **2019**, 4, 1900744	6.8	34
68	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
67	On the force and energy conversion in triboelectric nanogenerators. *Nano Energy*, **2019**, 59, 154-161	17.1	33
66	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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63	Thin, Skin-Integrated, Stretchable Triboelectric Nanogenerators for Tactile Sensing. *Advanced Electronic Materials*, **2020**, 6, 1901174	6.4	32
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59	Capturing Flow Energy from Ocean and Wind. *Energies*, **2019**, 12, 2184	3.1	27
58	Triboelectric Nanogenerator: Vertical Contact-Separation Mode. *Green Energy and Technology*, **2016**, 23-47	0.6	25
57	Self-powered electrowetting optical switch driven by a triboelectric nanogenerator for wireless sensing. *Nano Energy*, **2019**, 66, 104140	17.1	24
56	On the Maximal Output Energy Density of Nanogenerators. *ACS Nano*, **2019**, 13, 13257-13263	16.7	24

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48	. *IEEE Transactions on Electron Devices*, **2013**, 60, 2900-2905	2.9	19
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44	On the material-dependent charge transfer mechanism of the contact electrification. *Nano Energy*, **2020**, 78, 105343	17.1	12
43	High-voltage applications of the triboelectric nanogenerator: Opportunities brought by the unique energy technology. *MRS Energy & Sustainability*, **2019**, 6, 1	2.2	12
42	Understanding Self-Catalyzed Epitaxial Growth of III-V Nanowires toward Controlled Synthesis. *Nano Letters*, **2017**, 17, 1167-1173	11.5	11
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38	A fully self-powered, ultra-stable cholesteric smart window triggered by instantaneous mechanical stimuli. *Nano Energy*, **2021**, 85, 105976	17.1	10

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35	Triboelectric Nanogenerator (TENG) Mass Spectrometry of Falsified Antimalarials. *Rapid Communications in Mass Spectrometry*, **2018**, 32, 1585	2.2	9
34	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
33	Boosting the Output Performance of the Triboelectric Nanogenerator through the Nonlinear Oscillator. *ACS Applied Materials & Interfaces*, **2021**, 13, 6331-6338	9.5	9
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31	Triboelectrification. *Green Energy and Technology*, **2016**, 1-19	0.6	8
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17	Robust Power Textile Based on Triboelectrification for Self-Powered Smart Textiles. *IEEE Open Journal of Nanotechnology*, **2020**, 1, 95-99	2.1	2
16	Self-powered Sensing for Vibration and Biomedical Monitoring. *Green Energy and Technology*, **2016**, 431-454	0.6	2
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9	Self-powered Sensing for Human-Machine Interface. *Green Energy and Technology*, **2016**, 401-429	0.6	1
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1 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