

# Guang Zhu

## List of Publications by Citations

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73  
papers

10,023  
citations

40  
h-index

77  
g-index

77  
ext. papers

11,460  
ext. citations

14.1  
avg, IF

6.31  
L-index

#	Paper	IF	Citations
73	Toward large-scale energy harvesting by a nanoparticle-enhanced triboelectric nanogenerator. <i>Nano Letters</i> , <b>2013</b> , 13, 847-53	11.5	804
72	Triboelectric-generator-driven pulse electrodeposition for micropatterning. <i>Nano Letters</i> , <b>2012</b> , 12, 4960-5	11.5	690
71	Radial-arrayed rotary electrification for high performance triboelectric generator. <i>Nature Communications</i> , <b>2014</b> , 5, 3426	17.4	629
70	Flexible high-output nanogenerator based on lateral ZnO nanowire array. <i>Nano Letters</i> , <b>2010</b> , 10, 3151-5	11.5	628
69	High-resolution electroluminescent imaging of pressure distribution using a piezoelectric nanowire LED array. <i>Nature Photonics</i> , <b>2013</b> , 7, 752-758	33.9	534
68	Flexible nanocomposite generator made of BaTiO <sub>3</sub> nanoparticles and graphitic carbons. <i>Advanced Materials</i> , <b>2012</b> , 24, 2999-3004, 2937	24	511
67	Integrated multilayered triboelectric nanogenerator for harvesting biomechanical energy from human motions. <i>ACS Nano</i> , <b>2013</b> , 7, 3713-9	16.7	444
66	Triboelectric nanogenerators as a new energy technology: From fundamentals, devices, to applications. <i>Nano Energy</i> , <b>2015</b> , 14, 126-138	17.1	400
65	Linear-grating triboelectric generator based on sliding electrification. <i>Nano Letters</i> , <b>2013</b> , 13, 2282-9	11.5	378
64	Harvesting water wave energy by asymmetric screening of electrostatic charges on a nanostructured hydrophobic thin-film surface. <i>ACS Nano</i> , <b>2014</b> , 8, 6031-7	16.7	376
63	Self-powered, ultrasensitive, flexible tactile sensors based on contact electrification. <i>Nano Letters</i> , <b>2014</b> , 14, 3208-13	11.5	352
62	Progress in nanogenerators for portable electronics. <i>Materials Today</i> , <b>2012</b> , 15, 532-543	21.8	351
61	A shape-adaptive thin-film-based approach for 50% high-efficiency energy generation through micro-grating sliding electrification. <i>Advanced Materials</i> , <b>2014</b> , 26, 3788-96	24	346
60	Functional electrical stimulation by nanogenerator with 58 V output voltage. <i>Nano Letters</i> , <b>2012</b> , 12, 3086-90	11.5	253
59	Enhanced triboelectric nanogenerators and triboelectric nanosensor using chemically modified TiO <sub>2</sub> nanomaterials. <i>ACS Nano</i> , <b>2013</b> , 7, 4554-60	16.7	222
58	3D Stack Integrated Triboelectric Nanogenerator for Harvesting Vibration Energy. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 4090-4096	15.6	213
57	Membrane-Based Self-Powered Triboelectric Sensors for Pressure Change Detection and Its Uses in Security Surveillance and Healthcare Monitoring. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 5807-5813	15.6	199

56	In situ quantitative study of nanoscale triboelectrification and patterning. <i>Nano Letters</i> , <b>2013</b> , 13, 2771-6115	11.5	163
55	Harvesting vibration energy by a triple-cantilever based triboelectric nanogenerator. <i>Nano Research</i> , <b>2013</b> , 6, 880-886	10	161
54	Significant Enhancement of Triboelectric Charge Density by Fluorinated Surface Modification in Nanoscale for Converting Mechanical Energy. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 5691-5697	15.6	150
53	Enhanced Performance of a ZnO Nanowire-Based Self-Powered Glucose Sensor by Piezotronic Effect. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 5868-5874	15.6	150
52	Dipole-moment-induced effect on contact electrification for triboelectric nanogenerators. <i>Nano Research</i> , <b>2014</b> , 7, 990-997	10	139
51	Stretchable Porous Carbon Nanotube-Elastomer Hybrid Nanocomposite for Harvesting Mechanical Energy. <i>Advanced Materials</i> , <b>2017</b> , 29, 1603115	24	137
50	Dynamic Triboelectrification-Induced Electroluminescence and its Use in Visualized Sensing. <i>Advanced Materials</i> , <b>2016</b> , 28, 6656-64	24	107
49	Highly Robust, Transparent, and Breathable Epidermal Electrode. <i>ACS Nano</i> , <b>2018</b> , 12, 9326-9332	16.7	102
48	Self-powered thin-film motion vector sensor. <i>Nature Communications</i> , <b>2015</b> , 6, 8031	17.4	100
47	A self-powered electrochromic device driven by a nanogenerator. <i>Energy and Environmental Science</i> , <b>2012</b> , 5, 9462	35.4	96
46	Highly Adaptive Solid-Liquid Interfacing Triboelectric Nanogenerator for Harvesting Diverse Water Wave Energy. <i>ACS Nano</i> , <b>2018</b> , 12, 4280-4285	16.7	94
45	A Self-Powered Implantable Drug-Delivery System Using Biokinetic Energy. <i>Advanced Materials</i> , <b>2017</b> , 29, 1605668	24	89
44	Triboelectric Charging at the Nanostructured Solid/Liquid Interface for Area-Scalable Wave Energy Conversion and Its Use in Corrosion Protection. <i>ACS Nano</i> , <b>2015</b> , 9, 7671-7	16.7	83
43	Fully Rollable Lead-Free Poly(vinylidene fluoride)-Niobate-Based Nanogenerator with Ultra-Flexible Nano-Network Electrodes. <i>ACS Nano</i> , <b>2018</b> , 12, 4803-4811	16.7	76
42	Polymer Materials for High-Performance Triboelectric Nanogenerators. <i>Advanced Science</i> , <b>2020</b> , 7, 2000186	19.6	73
41	Ultracomfortable Hierarchical Nanonetwork for Highly Sensitive Pressure Sensor. <i>ACS Nano</i> , <b>2020</b> , 14, 9605-9612	16.7	66
40	Synthesis of vertically aligned ultra-long ZnO nanowires on heterogeneous substrates with catalyst at the root. <i>Nanotechnology</i> , <b>2012</b> , 23, 055604	3.4	63
39	Surface-charge engineering for high-performance triboelectric nanogenerator based on identical electrification materials. <i>Nano Energy</i> , <b>2014</b> , 10, 83-89	17.1	62

38	Self-powered, on-demand transdermal drug delivery system driven by triboelectric nanogenerator. <i>Nano Energy</i> , <b>2019</b> , 62, 610-619	17.1	61
37	Triboelectrification-enabled touch sensing for self-powered position mapping and dynamic tracking by a flexible and area-scalable sensor array. <i>Nano Energy</i> , <b>2017</b> , 41, 387-393	17.1	50
36	A Self-Powered Triboelectric Nanosensor for Mercury Ion Detection. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 5169-5173	3.6	42
35	Small-Sized, Lightweight, and Flexible Triboelectric Nanogenerator Enhanced by PTFE/PDMS Nanocomposite Electret. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 20370-20377	9.5	41
34	Triboelectric-Thermoelectric Hybrid Nanogenerator for Harvesting Energy from Ambient Environments. <i>Advanced Materials Technologies</i> , <b>2018</b> , 3, 1800166	6.8	40
33	Multilayered flexible nanocomposite for hybrid nanogenerator enabled by conjunction of piezoelectricity and triboelectricity. <i>Nano Research</i> , <b>2017</b> , 10, 785-793	10	37
32	Nanofiber-Reinforced Silver Nanowires Network as a Robust, Ultrathin, and Conformable Epidermal Electrode for Ambulatory Monitoring of Physiological Signals. <i>Small</i> , <b>2019</b> , 15, e1900755	11	36
31	Keystroke Dynamics Identification Based on Triboelectric Nanogenerator for Intelligent Keyboard Using Deep Learning Method. <i>Advanced Materials Technologies</i> , <b>2019</b> , 4, 1800167	6.8	36
30	Boosting the Power and Lowering the Impedance of Triboelectric Nanogenerators through Manipulating the Permittivity for Wearable Energy Harvesting. <i>ACS Nano</i> , <b>2021</b> , 15, 7513-7521	16.7	31
29	In Situ Active Poling of Nanofiber Networks for Gigantically Enhanced Particulate Filtration. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 24332-24338	9.5	30
28	Flexible Porous Polydimethylsiloxane/Lead Zirconate Titanate-Based Nanogenerator Enabled by the Dual Effect of Ferroelectricity and Piezoelectricity. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 33105-33111	9.5	29
27	Large-Area Integrated Triboelectric Sensor Array for Wireless Static and Dynamic Pressure Detection and Mapping. <i>Small</i> , <b>2020</b> , 16, e1906352	11	26
26	Triboelectrification-enabled thin-film tactile matrix for self-powered high-resolution imaging. <i>Nano Energy</i> , <b>2018</b> , 50, 497-503	17.1	24
25	Facile Fabrication of Flexible Pressure Sensor with Programmable Lattice Structure. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 10388-10396	9.5	21
24	Enhanced High-Resolution Triboelectrification-Induced Electroluminescence for Self-Powered Visualized Interactive Sensing. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 13796-13802	9.5	20
23	High-Intensity Triboelectrification-Induced Electroluminescence by Microsized Contacts for Self-Powered Display and Illumination. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1701063	4.6	20
22	Nanowire-array-based gene electro-transfection system driven by human-motion operated triboelectric nanogenerator. <i>Nano Energy</i> , <b>2019</b> , 64, 103901	17.1	19
21	Triboelectric-Potential-Regulated Charge Transport Through p-n Junctions for Area-Scalable Conversion of Mechanical Energy. <i>Advanced Materials</i> , <b>2016</b> , 28, 668-76	24	19

20	Stretchable shape-adaptive liquid-solid interface nanogenerator enabled by in-situ charged nanocomposite membrane. <i>Nano Energy</i> , <b>2020</b> , 69, 104414	17.1	18
19	Fully-integrated motion-driven electroluminescence enabled by triboelectrification for customized flexible display. <i>Nano Energy</i> , <b>2019</b> , 61, 158-164	17.1	17
18	Self-Powered Electrowetting Valve for Instantaneous and Simultaneous Actuation of Paper-Based Microfluidic Assays. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1808974	15.6	17
17	Self-Powered Optical Switch Based on Triboelectrification-Triggered Liquid Crystal Alignment for Wireless Sensing. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1808633	15.6	15
16	Highly conductive, stretchable, and breathable epidermal electrode based on hierarchically interactive nano-network. <i>Nanoscale</i> , <b>2020</b> , 12, 16053-16062	7.7	14
15	Nanocomposite electret with surface potential self-recovery from water dipping for environmentally stable energy harvesting. <i>Nano Energy</i> , <b>2019</b> , 64, 103913	17.1	13
14	All-Fabric Ultrathin Capacitive Sensor with High Pressure Sensitivity and Broad Detection Range for Electronic Skin. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 24062-24069	9.5	13
13	Wide-spectrum manipulation of triboelectrification-induced electroluminescence by long afterglow phosphors in elastomeric zinc sulfide composites. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 4567-4572	7.1	10
12	A Contact-Sliding-Triboelectrification-Driven Dynamic Optical Transmittance Modulator for Self-Powered Information Covering and Selective Visualization. <i>Advanced Materials</i> , <b>2020</b> , 32, e1904988 <sup>24</sup>		10
11	Effects of rosin-type nucleating agent on polypropylene crystallization. <i>Journal of Applied Polymer Science</i> , <b>2002</b> , 83, 1069-1073	2.9	9
10	Triboelectrification-Induced Self-Assembly of Macro-Sized Polymer Beads on a Nanostructured Surface for Self-Powered Patterning. <i>ACS Nano</i> , <b>2018</b> , 12, 441-447	16.7	8
9	Stretchable Hybrid Bilayered Luminescent Composite Based on the Combination of Strain-Induced and Triboelectrification-Induced Electroluminescence. <i>ACS Omega</i> , <b>2019</b> , 4, 20470-20475	3.9	8
8	Layer-by-Layer Assembly of Nanofiber/Nanoparticle Artificial Skin for Strain-Insensitive UV Shielding and Visualized UV Detection. <i>Advanced Materials Technologies</i> , <b>2020</b> , 5, 1900976	6.8	7
7	Electret-induced electric field assisted luminescence modulation for interactive visualized sensing in a non-contact mode. <i>Materials Horizons</i> , <b>2020</b> , 7, 1144-1149	14.4	7
6	Ultra-robust stretchable electrode for e-skin: In situ assembly using a nanofiber scaffold and liquid metal to mimic water-to-net interaction. <i>Information Materials</i> , <b>2022</b> , 4,	23.1	6
5	A flexible dual parameter sensor with hierarchical porous structure for fully decoupled pressure/temperature sensing. <i>Chemical Engineering Journal</i> , <b>2021</b> , 133158	14.7	5
4	Functional Nanomaterials for Sustainable Energy Technologies. <i>Journal of Nanomaterials</i> , <b>2016</b> , 2016, 1-2	3.2	5
3	Differentiation of Multiple Mechanical Stimuli by a Flexible Sensor Using a Dual-Interdigital-Electrode Layout for Bodily Kinesthetic Identification. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 26394-26403	9.5	4

2	Triboelectric Nanogenerator Based on Direct Image Lithography and Surface Fluorination for Biomechanical Energy Harvesting and Self-powered Sterilization. <i>Nano Energy</i> , <b>2022</b> , 107279	17.1	2
1	Charge Distribution and Stability of SiO <sub>2</sub> Nanoarray Electret. <i>ChemNanoMat</i> , <b>2020</b> , 6, 212-217	3.5	1