

Changsheng Wu

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

51 papers	4,887 citations	36 h-index	53 g-index
53 ext. papers	6,091 ext. citations	15.5 avg, IF	6.02 L-index

#	Paper	IF	Citations
51	Triboelectric Nanogenerator: A Foundation of the Energy for the New Era. <i>Advanced Energy Materials</i> , 2019 , 9, 1802906	21.8	592
50	A highly sensitive, self-powered triboelectric auditory sensor for social robotics and hearing aids. <i>Science Robotics</i> , 2018 , 3,	18.6	399
49	Achieving ultrahigh triboelectric charge density for efficient energy harvesting. <i>Nature Communications</i> , 2017 , 8, 88	17.4	350
48	MXene electrochemical microsupercapacitor integrated with triboelectric nanogenerator as a wearable self-charging power unit. <i>Nano Energy</i> , 2018 , 45, 266-272	17.1	236
47	A Highly Stretchable Fiber-Based Triboelectric Nanogenerator for Self-Powered Wearable Electronics. <i>Advanced Functional Materials</i> , 2017 , 27, 1604378	15.6	230
46	All-in-One Shape-Adaptive Self-Charging Power Package for Wearable Electronics. <i>ACS Nano</i> , 2016 , 10, 10580-10588	16.7	230
45	Electric Eel-Skin-Inspired Mechanically Durable and Super-Stretchable Nanogenerator for Deformable Power Source and Fully Autonomous Conformable Electronic-Skin Applications. <i>Advanced Materials</i> , 2016 , 28, 10024-10032	24	212
44	Paper-Based Triboelectric Nanogenerators Made of Stretchable Interlocking Kirigami Patterns. <i>ACS Nano</i> , 2016 , 10, 4652-9	16.7	160
43	Self-Powered Wind Sensor System for Detecting Wind Speed and Direction Based on a Triboelectric Nanogenerator. <i>ACS Nano</i> , 2018 , 12, 3954-3963	16.7	143
42	Fully Packaged Blue Energy Harvester by Hybridizing a Rolling Triboelectric Nanogenerator and an Electromagnetic Generator. <i>ACS Nano</i> , 2016 , 10, 11369-11376	16.7	137
41	Triboelectric microplasma powered by mechanical stimuli. <i>Nature Communications</i> , 2018 , 9, 3733	17.4	137
40	A spring-based resonance coupling for hugely enhancing the performance of triboelectric nanogenerators for harvesting low-frequency vibration energy. <i>Nano Energy</i> , 2017 , 32, 287-293	17.1	124
39	Keystroke dynamics enabled authentication and identification using triboelectric nanogenerator array. <i>Materials Today</i> , 2018 , 21, 216-222	21.8	122
38	Nanogenerator-based dual-functional and self-powered thin patch loudspeaker or microphone for flexible electronics. <i>Nature Communications</i> , 2017 , 8, 15310	17.4	121
37	Human-Machine Interfacing Enabled by Triboelectric Nanogenerators and Tribotronics. <i>Advanced Materials Technologies</i> , 2019 , 4, 1800487	6.8	110
36	Silicon Nanowire/Polymer Hybrid Solar Cell-Supercapacitor: A Self-Charging Power Unit with a Total Efficiency of 10.5. <i>Nano Letters</i> , 2017 , 17, 4240-4247	11.5	106
35	Self-Powered Si/CdS Flexible Photodetector with Broadband Response from 325 to 1550 nm Based on Pyro-phototronic Effect: An Approach for Photosensing below Bandgap Energy. <i>Advanced Materials</i> , 2018 , 30, 1705893	24	95

34	Maximized Effective Energy Output of Contact-Separation-Triggered Triboelectric Nanogenerators as Limited by Air Breakdown. <i>Advanced Functional Materials</i> , 2017 , 27, 1700049	15.6	90
33	Self-Powered Multifunctional Motion Sensor Enabled by Magnetic-Regulated Triboelectric Nanogenerator. <i>ACS Nano</i> , 2018 , 12, 5726-5733	16.7	77
32	Quantitative Prediction of Paravalvular Leak in Transcatheter Aortic Valve Replacement Based on Tissue-Mimicking 3D Printing. <i>JACC: Cardiovascular Imaging</i> , 2017 , 10, 719-731	8.4	76
31	A Self-Powered Dynamic Displacement Monitoring System Based on Triboelectric Accelerometer. <i>Advanced Energy Materials</i> , 2017 , 7, 1700565	21.8	75
30	Self-Powered Electrochemical Synthesis of Polypyrrole from the Pulsed Output of a Triboelectric Nanogenerator as a Sustainable Energy System. <i>Advanced Functional Materials</i> , 2016 , 26, 3542-3548	15.6	75
29	Signal Output of Triboelectric Nanogenerator at Oil-Water-Solid Multiphase Interfaces and its Application for Dual-Signal Chemical Sensing. <i>Advanced Materials</i> , 2019 , 31, e1902793	24	64
28	Self-Powered Iontophoretic Transdermal Drug Delivery System Driven and Regulated by Biomechanical Motions. <i>Advanced Functional Materials</i> , 2020 , 30, 1907378	15.6	63
27	Piezo-Phototronic Effect on Selective Electron or Hole Transport through Depletion Region of Vis-NIR Broadband Photodiode. <i>Advanced Materials</i> , 2017 , 29, 1701412	24	62
26	Contact-Electrification between Two Identical Materials: Curvature Effect. <i>ACS Nano</i> , 2019 , 13, 2034-2041	16.7	55
25	Rational Structure Optimized Hybrid Nanogenerator for Highly Efficient Water Wave Energy Harvesting. <i>Advanced Energy Materials</i> , 2019 , 9, 1802892	21.8	55
24	Concurrent Harvesting of Ambient Energy by Hybrid Nanogenerators for Wearable Self-Powered Systems and Active Remote Sensing. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 14708-14715	9.5	55
23	Polymer nanogenerators: Opportunities and challenges for large-scale applications. <i>Journal of Applied Polymer Science</i> , 2018 , 135, 45674	2.9	53
22	TriboPump: A Low-Cost, Hand-Powered Water Disinfection System. <i>Advanced Energy Materials</i> , 2019 , 9, 1901320	21.8	52
21	Sustainable and Biodegradable Wood Sponge Piezoelectric Nanogenerator for Sensing and Energy Harvesting Applications. <i>ACS Nano</i> , 2020 , 14, 14665-14674	16.7	49
20	Dual-material 3D printed metamaterials with tunable mechanical properties for patient-specific tissue-mimicking phantoms. <i>Additive Manufacturing</i> , 2016 , 12, 31-37	6.1	46
19	Largely Improved Near-Infrared Silicon-Photosensing by the Piezo-Phototronic Effect. <i>ACS Nano</i> , 2017 , 11, 7118-7125	16.7	46
18	Self-powered wireless optical transmission of mechanical agitation signals. <i>Nano Energy</i> , 2018 , 47, 566-572	7.1	45
17	Simultaneously Enhancing Light Emission and Suppressing Efficiency Droop in GaN Microwire-Based Ultraviolet Light-Emitting Diode by the Piezo-Phototronic Effect. <i>Nano Letters</i> , 2017 , 17, 3718-3724	11.5	44

16	Electrohydrodynamic Jet Printing Driven by a Triboelectric Nanogenerator. <i>Advanced Functional Materials</i> , 2019 , 29, 1901102	15.6	39
15	Enhanced performances of Si/CdS heterojunction near-infrared photodetector by the piezo-phototronic effect. <i>Nano Energy</i> , 2018 , 44, 311-318	17.1	36
14	Field Emission of Electrons Powered by a Triboelectric Nanogenerator. <i>Advanced Functional Materials</i> , 2018 , 28, 1800610	15.6	32
13	Bioprinting: an assessment based on manufacturing readiness levels. <i>Critical Reviews in Biotechnology</i> , 2017 , 37, 333-354	9.4	23
12	A facile method for integrating direct-write devices into three-dimensional printed parts. <i>Smart Materials and Structures</i> , 2015 , 24, 065008	3.4	22
11	Sub-nanoliter metabolomics via mass spectrometry to characterize volume-limited samples. <i>Nature Communications</i> , 2020 , 11, 5625	17.4	22
10	Pop-Up Conducting Large-Area Biographene Kirigami. <i>ACS Nano</i> , 2018 , 12, 9714-9720	16.7	22
9	A wireless, skin-interfaced biosensor for cerebral hemodynamic monitoring in pediatric care. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 31674-31684	11.5	21
8	Ferroelectricity-Enhanced Piezo-Phototronic Effect in 2D V-Doped ZnO Nanosheets. <i>Advanced Science</i> , 2019 , 6, 1900314	13.6	20
7	A transient, closed-loop network of wireless, body-integrated devices for autonomous electrotherapy. <i>Science</i> , 2022 , 376, 1006-1012	33.3	17
6	Differential cardiopulmonary monitoring system for artifact-canceled physiological tracking of athletes, workers, and COVID-19 patients. <i>Science Advances</i> , 2021 , 7,	14.3	11
5	Sunlight-Triggerable Transient Energy Harvester and Sensors Based on Triboelectric Nanogenerator Using Acid-Sensitive Poly(phthalaldehyde). <i>Advanced Electronic Materials</i> , 2019 , 5, 1900725	6.4	10
4	Functionalized wood with tunable tribopolarity for efficient triboelectric nanogenerators. <i>Matter</i> , 2021 , 4, 3049-3066	12.7	6
3	Large-Area Triboelectric Nanogenerator Mass Spectrometry: Expanded Coverage, Double-Bond Pinpointing, and Supercharging. <i>Journal of the American Society for Mass Spectrometry</i> , 2020 , 31, 727-734	4.5	4
2	Bitter Flavored, Soft Composites for Wearables Designed to Reduce Risks of Choking in Infants. <i>Advanced Materials</i> , 2021 , 33, e2103857	24	4
1	Implantable, wireless, self-fixing thermal sensors for continuous measurements of microvascular blood flow in flaps and organ grafts.. <i>Biosensors and Bioelectronics</i> , 2022 , 206, 114145	11.8	2