Sihong Wang

List of Publications by Year
in descending order

64 papers	21,445 citations	23500 58 h-index	102304 66 g-index
66 all docs	66 docs citations	66 times ranked	14698 citing authors

#	Article	IF	Citations
1	Stretchable Redoxâ€Active Semiconducting Polymers for Highâ€Performance Organic Electrochemical Transistors. Advanced Materials, 2022, 34, e2201178.	11.1	50
2	Strain-insensitive intrinsically stretchable transistors and circuits. Nature Electronics, 2021, 4, 143-150.	13.1	170
3	Observation of Stepwise Ultrafast Crystallization Kinetics of Donorâ€"Acceptor Conjugated Polymers and Correlation with Field Effect Mobility. Chemistry of Materials, 2021, 33, 1637-1647.	3.2	17
4	Implantable bioelectronics toward long-term stability and sustainability. Matter, 2021, 4, 1125-1141.	5.0	45
5	A universal and facile approach for building multifunctional conjugated polymers for human-integrated electronics. Matter, 2021, 4, 3015-3029.	5.0	13
6	Stretchable transistors and functional circuits for human-integrated electronics. Nature Electronics, 2021, 4, 17-29.	13.1	153
7	A stretchable and strain-unperturbed pressure sensor for motion interferenceâ€"free tactile monitoring on skins. Science Advances, 2021, 7, eabi4563.	4.7	136
8	A wireless body area sensor network based on stretchable passive tags. Nature Electronics, 2019, 2, 361-368.	13.1	421
9	Multi-scale ordering in highly stretchable polymer semiconducting films. Nature Materials, 2019, 18, 594-601.	13.3	251
10	Skin-Inspired Electronics: An Emerging Paradigm. Accounts of Chemical Research, 2018, 51, 1033-1045.	7.6	407
11	Skin electronics from scalable fabrication of an intrinsically stretchable transistor array. Nature, 2018, 555, 83-88.	13.7	1,588
12	Quadruple H-Bonding Cross-Linked Supramolecular Polymeric Materials as Substrates for Stretchable, Antitearing, and Self-Healable Thin Film Electrodes. Journal of the American Chemical Society, 2018, 140, 5280-5289.	6.6	464
13	Nonhalogenated Solvent Processable and Printable High-Performance Polymer Semiconductor Enabled by Isomeric Nonconjugated Flexible Linkers. Macromolecules, 2018, 51, 4976-4985.	2.2	68
14	Highly stretchable polymer semiconductor films through the nanoconfinement effect. Science, 2017, 355, 59-64.	6.0	897
15	Sustainable Energy Source for Wearable Electronics Based on Multilayer Elastomeric Triboelectric Nanogenerators. Advanced Energy Materials, 2017, 7, 1602832.	10.2	129
16	Ultratransparent and stretchable graphene electrodes. Science Advances, 2017, 3, e1700159.	4.7	231
17	Effective energy storage from a triboelectric nanogenerator. Nature Communications, 2016, 7, 10987.	5.8	407
18	Molecular surface functionalization to enhance the power output of triboelectric nanogenerators. Journal of Materials Chemistry A, 2016, 4, 3728-3734.	5.2	257

#	ARTICLE	IF	CITATIONS
19	A Streaming Potential/Currentâ€Based Microfluidic Direct Current Generator for Selfâ€Powered Nanosystems. Advanced Materials, 2015, 27, 6482-6487.	11.1	104
20	A Flexible Fiberâ€Based Supercapacitorâ€"Triboelectricâ€Nanogenerator Power System for Wearable Electronics. Advanced Materials, 2015, 27, 4830-4836.	11.1	322
21	Highly porous piezoelectric PVDF membrane as effective lithium ion transfer channels for enhanced self-charging power cell. Nano Energy, 2015, 14, 77-86.	8.2	95
22	Robust Triboelectric Nanogenerator Based on Rolling Electrification and Electrostatic Induction at an Instantaneous Energy Conversion Efficiency of â^¼55%. ACS Nano, 2015, 9, 922-930.	7.3	245
23	Optimization of Triboelectric Nanogenerator Charging Systems for Efficient Energy Harvesting and Storage. IEEE Transactions on Electron Devices, 2015, 62, 641-647.	1.6	144
24	Largely Improving the Robustness and Lifetime of Triboelectric Nanogenerators through Automatic Transition between Contact and Noncontact Working States. ACS Nano, 2015, 9, 7479-7487.	7.3	100
25	Theory of freestanding triboelectric-layer-based nanogenerators. Nano Energy, 2015, 12, 760-774.	8.2	409
26	Triboelectricâ€"Pyroelectricâ€"Piezoelectric Hybrid Cell for Highâ€Efficiency Energyâ€Harvesting and Selfâ€Powered Sensing. Advanced Materials, 2015, 27, 2340-2347.	11.1	397
27	Self-Powered Triboelectric Nanosensor for Microfluidics and Cavity-Confined Solution Chemistry. ACS Nano, 2015, 9, 11056-11063.	7.3	99
28	Triboelectric nanogenerators as self-powered active sensors. Nano Energy, 2015, 11, 436-462.	8.2	674
29	Gratingâ€Structured Freestanding Triboelectricâ€Layer Nanogenerator for Harvesting Mechanical Energy at 85% Total Conversion Efficiency. Advanced Materials, 2014, 26, 6599-6607.	11.1	440
30	Theoretical Investigation and Structural Optimization of Singleâ€Electrode Triboelectric Nanogenerators. Advanced Functional Materials, 2014, 24, 3332-3340.	7.8	513
31	Maximum Surface Charge Density for Triboelectric Nanogenerators Achieved by Ionizedâ€Air Injection: Methodology and Theoretical Understanding. Advanced Materials, 2014, 26, 6720-6728.	11.1	517
32	Multi-layered disk triboelectric nanogenerator for harvesting hydropower. Nano Energy, 2014, 6, 129-136.	8.2	98
33	In Vivo Powering of Pacemaker by Breathingâ€Driven Implanted Triboelectric Nanogenerator. Advanced Materials, 2014, 26, 5851-5856.	11.1	476
34	Quantitative Measurements of Vibration Amplitude Using a Contact-Mode Freestanding Triboelectric Nanogenerator. ACS Nano, 2014, 8, 12004-12013.	7.3	219
35	A theoretical study of grating structured triboelectric nanogenerators. Energy and Environmental Science, 2014, 7, 2339-2349.	15.6	194
36	Manipulating Nanoscale Contact Electrification by an Applied Electric Field. Nano Letters, 2014, 14, 1567-1572.	4.5	175

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37	Dipole-moment-induced effect on contact electrification for triboelectric nanogenerators. Nano Research, 2014, 7, 990-997.	5.8	180
38	Noncontact Free-Rotating Disk Triboelectric Nanogenerator as a Sustainable Energy Harvester and Self-Powered Mechanical Sensor. ACS Applied Materials & Interfaces, 2014, 6, 3031-3038.	4.0	217
39	Simulation method for optimizing the performance of an integrated triboelectric nanogenerator energy harvesting system. Nano Energy, 2014, 8, 150-156.	8.2	214
40	Freestanding Triboelectricâ€Layerâ€Based Nanogenerators for Harvesting Energy from a Moving Object or Human Motion in Contact and Nonâ€contact Modes. Advanced Materials, 2014, 26, 2818-2824.	11.1	752
41	Selfâ€Powered Trajectory, Velocity, and Acceleration Tracking of a Moving Object/Body using a Triboelectric Sensor. Advanced Functional Materials, 2014, 24, 7488-7494.	7.8	161
42	Finger typing driven triboelectric nanogenerator and its use for instantaneously lighting up LEDs. Nano Energy, 2013, 2, 491-497.	8.2	264
43	Enhanced Performance of Flexible ZnO Nanowire Based Roomâ€Temperature Oxygen Sensors by Piezotronic Effect. Advanced Materials, 2013, 25, 3701-3706.	11.1	146
44	Sliding-Triboelectric Nanogenerators Based on In-Plane Charge-Separation Mechanism. Nano Letters, 2013, 13, 2226-2233.	4.5	633
45	Triboelectric Active Sensor Array for Self-Powered Static and Dynamic Pressure Detection and Tactile Imaging. ACS Nano, 2013, 7, 8266-8274.	7.3	529
46	Motion Charged Battery as Sustainable Flexible-Power-Unit. ACS Nano, 2013, 7, 11263-11271.	7.3	139
47	Theoretical study of contact-mode triboelectric nanogenerators as an effective power source. Energy and Environmental Science, 2013, 6, 3576.	15.6	1,380
48	An elastic-spring-substrated nanogenerator as an active sensor for self-powered balance. Energy and Environmental Science, 2013, 6, 1164.	15.6	53
49	Enhanced Triboelectric Nanogenerators and Triboelectric Nanosensor Using Chemically Modified TiO₂ Nanomaterials. ACS Nano, 2013, 7, 4554-4560.	7.3	276
50	Rotary Triboelectric Nanogenerator Based on a Hybridized Mechanism for Harvesting Wind Energy. ACS Nano, 2013, 7, 7119-7125.	7.3	328
51	Segmentally Structured Disk Triboelectric Nanogenerator for Harvesting Rotational Mechanical Energy. Nano Letters, 2013, 13, 2916-2923.	4.5	437
52	Theory of Slidingâ€Mode Triboelectric Nanogenerators. Advanced Materials, 2013, 25, 6184-6193.	11.1	581
53	Nanoscale Triboelectric-Effect-Enabled Energy Conversion for Sustainably Powering Portable Electronics. Nano Letters, 2012, 12, 6339-6346.	4.5	1,062
54	Progress in nanogenerators for portable electronics. Materials Today, 2012, 15, 532-543.	8.3	417

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55	A self-powered electrochromic device driven by a nanogenerator. Energy and Environmental Science, 2012, 5, 9462.	15.6	117
56	An Integrated Power Pack of Dye-Sensitized Solar Cell and Li Battery Based on Double-Sided TiO₂ Nanotube Arrays. Nano Letters, 2012, 12, 2520-2523.	4.5	312
57	Synthesis of vertically aligned ultra-long ZnO nanowires on heterogeneous substrates with catalyst at the root. Nanotechnology, 2012, 23, 055604.	1.3	74
58	Hybridizing Energy Conversion and Storage in a Mechanical-to-Electrochemical Process for Self-Charging Power Cell. Nano Letters, 2012, 12, 5048-5054.	4.5	255
59	Pyroelectric Nanogenerators for Driving Wireless Sensors. Nano Letters, 2012, 12, 6408-6413.	4.5	221
60	Strain-Gated Piezotronic Transistors Based on Vertical Zinc Oxide Nanowires. ACS Nano, 2012, 6, 3760-3766.	7.3	113
61	Rectangular Bunched Rutile TiO₂ Nanorod Arrays Grown on Carbon Fiber for Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2012, 134, 4437-4441.	6.6	349
62	A Hybrid Piezoelectric Structure for Wearable Nanogenerators. Advanced Materials, 2012, 24, 1759-1764.	11.1	555
63	Flexible High-Output Nanogenerator Based on Lateral ZnO Nanowire Array. Nano Letters, 2010, 10, 3151-3155.	4.5	713
64	Nanostructuring HfO₂ Thin Films as Antireflection Coatings. Journal of the American Ceramic Society, 2009, 92, 3077-3080.	1.9	25