Haiyang Zou

List of Publications by Year
in descending order

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50 papers	7,794 citations	87723 38 h-index	189595 50 g-index
52 all docs	52 docs citations	52 times ranked	6411 citing authors

#	Article	IF	Citations
1	Conductive interlayer modulated ferroelectric nanocomposites for high performance triboelectric nanogenerator. Nano Energy, 2022, 91, 106668.	8.2	28
2	Dielectric Manipulated Charge Dynamics in Contact Electrification. Research, 2022, 2022, 9862980.	2.8	9
3	Interface induced performance enhancement in flexible BaTiO3/PVDF-TrFE based piezoelectric nanogenerators. Nano Energy, 2021, 80, 105515.	8.2	157
4	Theoretical investigation and experimental verification of the self-powered acceleration sensor based on triboelectric nanogenerators (TENGs). Extreme Mechanics Letters, 2021, 42, 101021.	2.0	28
5	Piezo-phototronic effect on photocatalysis, solar cells, photodetectors and light-emitting diodes. Chemical Society Reviews, 2021, 50, 13646-13691.	18.7	69
6	Dielectric Modulated Cellulose Paper/PDMSâ€Based Triboelectric Nanogenerators for Wireless Transmission and Electropolymerization Applications. Advanced Functional Materials, 2020, 30, 1904536.	7.8	142
7	Rationally designed rotation triboelectric nanogenerators with much extended lifetime and durability. Nano Energy, 2020, 68, 104378.	8.2	111
8	Revealing Electricalâ€Polingâ€Induced Polarization Potential in Hybrid Perovskite Photodetectors. Advanced Materials, 2020, 32, e2005481.	11.1	23
9	Celluloseâ€Based Fully Green Triboelectric Nanogenerators with Output Power Density of 300 W m^{â^'2}. Advanced Materials, 2020, 32, e2002824.	11.1	93
10	Rapid Capillaryâ€Assisted Solution Printing of Perovskite Nanowire Arrays Enables Scalable Production of Photodetectors. Angewandte Chemie, 2020, 132, 15052-15059.	1.6	1
11	Rapid Capillaryâ€Assisted Solution Printing of Perovskite Nanowire Arrays Enables Scalable Production of Photodetectors. Angewandte Chemie - International Edition, 2020, 59, 14942-14949.	7.2	36
12	Unraveling Temperatureâ€Dependent Contact Electrification between Slidingâ€Mode Triboelectric Pairs. Advanced Functional Materials, 2020, 30, 1909384.	7.8	42
13	Alternating Current Photovoltaic Effect. Advanced Materials, 2020, 32, e1907249.	11.1	54
14	Quantifying and understanding the triboelectric series of inorganic non-metallic materials. Nature Communications, 2020, 11, 2093.	5.8	287
15	Super-robust and frequency-multiplied triboelectric nanogenerator for efficient harvesting water and wind energy. Nano Energy, 2019, 64, 103908.	8.2	239
16	Broadband photodetectors based on topological insulator Bi2Se3 nanowire with enhanced performance by strain modulation effect. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 114, 113620.	1.3	8
17	Multifunctional Sensor Based on Translationalâ€Rotary Triboelectric Nanogenerator. Advanced Energy Materials, 2019, 9, 1901124.	10.2	101
18	Contact-Electrification between Two Identical Materials: Curvature Effect. ACS Nano, 2019, 13, 2034-2041.	7.3	78

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19	Dramatically Enhanced Broadband Photodetection by Dual Inversion Layers and Fowlerâ€“Nordheim Tunneling. ACS Nano, 2019, 13, 2289-2297.	7.3	11
20	Quantifying the triboelectric series. Nature Communications, 2019, 10, 1427.	5.8	1,107
21	An Elastic Triboelectric Nanogenerator for Harvesting Random Mechanical Energy with Multiple Working Modes. Advanced Materials Technologies, 2019, 4, 1900075.	3.0	15
22	Boosting the Solar Cell Efficiency by Flexo-photovoltaic Effect?. ACS Nano, 2019, 13, 12259-12267.	7.3	111
23	On the Electronâ€Transfer Mechanism in the Contactâ€Electrification Effect. Advanced Materials, 2018, 30, e1706790.	11.1	483
24	Complementary Electromagneticâ€Triboelectric Active Sensor for Detecting Multiple Mechanical Triggering. Advanced Functional Materials, 2018, 28, 1705808.	7.8	87
25	Rationally designed sea snake structure based triboelectric nanogenerators for effectively and efficiently harvesting ocean wave energy with minimized water screening effect. Nano Energy, 2018, 48, 421-429.	8.2	195
26	High-Output Lead-Free Flexible Piezoelectric Generator Using Single-Crystalline GaN Thin Film. ACS Applied Materials & Interfaces, 2018, 10, 12839-12846.	4.0	51
27	Self-powered wireless optical transmission of mechanical agitation signals. Nano Energy, 2018, 47, 566-572.	8.2	66
28	Dynamic Electronic Doping for Correlated Oxides by a Triboelectric Nanogenerator. Advanced Materials, 2018, 30, e1803580.	11.1	20
29	A Hierarchically Nanostructured Cellulose Fiberâ€Based Triboelectric Nanogenerator for Selfâ€Powered Healthcare Products. Advanced Functional Materials, 2018, 28, 1805540.	7.8	180
30	A Stretchable Yarn Embedded Triboelectric Nanogenerator as Electronic Skin for Biomechanical Energy Harvesting and Multifunctional Pressure Sensing. Advanced Materials, 2018, 30, e1804944.	11.1	396
31	An Ultra-Low-Friction Triboelectricâ€“Electromagnetic Hybrid Nanogenerator for Rotation Energy Harvesting and Self-Powered Wind Speed Sensor. ACS Nano, 2018, 12, 9433-9440.	7.3	286
32	Elasticâ€Beam Triboelectric Nanogenerator for Highâ€Performance Multifunctional Applications: Sensitive Scale, Acceleration/Force/Vibration Sensor, and Intelligent Keyboard. Advanced Energy Materials, 2018, 8, 1802159.	10.2	102
33	Raising the Working Temperature of a Triboelectric Nanogenerator by Quenching Down Electron Thermionic Emission in Contactâ€Electrification. Advanced Materials, 2018, 30, e1803968.	11.1	199
34	Integrated solar capacitors for energy conversion and storage. Nano Research, 2017, 10, 1545-1559.	5.8	61
35	Enhanced Performance of a Selfâ€Powered Organic/Inorganic Photodetector by Pyroâ€Phototronic and Piezoâ€Phototronic Effects. Advanced Materials, 2017, 29, 1606698.	11.1	157
36	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.	4.5	55

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37	A Selfâ€Powered Dynamic Displacement Monitoring System Based on Triboelectric Accelerometer. Advanced Energy Materials, 2017, 7, 1700565.	10.2	117
38	Silicon Nanowire/Polymer Hybrid Solar Cell-Supercapacitor: A Self-Charging Power Unit with a Total Efficiency of 10.5%. Nano Letters, 2017, 17, 4240-4247.	4.5	149
39	A Highly Stretchable and Washable All-Yarn-Based Self-Charging Knitting Power Textile Composed of Fiber Triboelectric Nanogenerators and Supercapacitors. ACS Nano, 2017, 11, 9490-9499.	7.3	419
40	Piezo-phototronic Effect Enhanced Responsivity of Photon Sensor Based on Composition-Tunable Ternary CdS_xSe_{1â€“x} Nanowires. ACS Photonics, 2017, 4, 2495-2503.	3.2	48
41	3D Orthogonal Woven Triboelectric Nanogenerator for Effective Biomechanical Energy Harvesting and as Selfâ€Powered Active Motion Sensors. Advanced Materials, 2017, 29, 1702648.	11.1	321
42	Largely Improved Near-Infrared Silicon-Photosensing by the Piezo-Phototronic Effect. ACS Nano, 2017, 11, 7118-7125.	7.3	57
43	An ultrathin paper-based self-powered system for portable electronics and wireless human-machine interaction. Nano Energy, 2017, 39, 328-336.	8.2	134
44	Piezoâ€Phototronic Effect on Selective Electron or Hole Transport through Depletion Region of Visâ€“NIR Broadband Photodiode. Advanced Materials, 2017, 29, 1701412.	11.1	82
45	Temperature dependence of pyro-phototronic effect on self-powered ZnO/perovskite heterostructured photodetectors. Nano Research, 2016, 9, 3695-3704.	5.8	87
46	A dual-electrolyte based air-breathing regenerative microfluidic fuel cell with 1.76 V open-circuit-voltage and 0.74 V water-splitting voltage. Nano Energy, 2016, 27, 619-626.	8.2	52
47	Micro-cable structured textile for simultaneously harvesting solar and mechanical energy. Nature Energy, 2016, 1, .	19.8	879
48	A switchable pH-differential unitized regenerative fuel cell with high performance. Journal of Power Sources, 2016, 314, 76-84.	4.0	28
49	A novel method to recycle mixed cathode materials for lithium ion batteries. Green Chemistry, 2013, 15, 1183.	4.6	321
50	Thermomechanical effect on magnetic behaviors of antiferromagnetic Mn-Fe(Cu) alloy. Transactions of Nonferrous Metals Society of China, 2009, 19, s802-s805.	1.7	0