

# Hulin Zhang

## List of Publications by Year in descending order

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89  
papers

7,639  
citations

71061

41  
h-index

49868

87  
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91  
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91  
docs citations

91  
times ranked

6356  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced piezoelectric performance of multi-layered flexible polyvinylidene fluoride/BaTiO <sub>3</sub> /rGO films for monitoring human body motions. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 4291-4304.	1.1	9
2	Surface Functionalization, Bioanalysis, and Applications: Progress of New Magnetoelastic Biosensors. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	5
3	Thermogalvanic hydrogels for self-powered temperature monitoring in extreme environments. <i>Journal of Materials Chemistry C</i> , 2022, 10, 13789-13796.	2.7	19
4	Wearable Electronics Powered by Triboelectrification between Hair and Cloth for Monitoring Body Motions. <i>Energy Technology</i> , 2022, 10, .	1.8	10
5	A Triboelectric Piston-Cylinder Assembly with Condition Monitoring and Self-Powering Capabilities. <i>Energy Technology</i> , 2022, 10, .	1.8	2
6	Preparation and Catalytic Performance of Amidoximated Polyacrylonitrile Bimodal Nanofiber Iron Complexes. <i>Fibers and Polymers</i> , 2022, 23, 1244-1255.	1.1	1
7	Recent advancements for improving the performance of triboelectric nanogenerator devices. <i>Nano Energy</i> , 2022, 99, 107318.	8.2	76
8	Transparent stretchable thermogalvanic PVA/gelatin hydrogel electrolyte for harnessing solar energy enabled by a binary solvent strategy. <i>Nano Energy</i> , 2022, 100, 107449.	8.2	32
9	Wearable Electronics Based on the Gel Thermogalvanic Electrolyte for Self-Powered Human Health Monitoring. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 37316-37322.	4.0	75
10	Human body-based self-powered wearable electronics for promoting wound healing driven by biomechanical motions. <i>Nano Energy</i> , 2021, 89, 106465.	8.2	55
11	Magnetorheological Elastomer-Based Self-Powered Triboelectric Nanosensor for Monitoring Magnetic Field. <i>Nanomaterials</i> , 2021, 11, 2815.	1.9	6
12	Self-Powered Air Filter Based on an Electrospun Respiratory Triboelectric Nanogenerator. <i>ACS Applied Energy Materials</i> , 2021, 4, 14700-14708.	2.5	28
13	Building self-powered emergency electronics based on hybrid nanogenerators for field survival/rescue. <i>Energy Science and Engineering</i> , 2020, 8, 574-581.	1.9	5
14	Cylinder-based hybrid rotary nanogenerator for harvesting rotational energy from axles and self-powered tire pressure monitoring. <i>Energy Science and Engineering</i> , 2020, 8, 291-299.	1.9	14
15	A Voiceprint Recognition Sensor Based on a Fully 3D-Printed Triboelectric Nanogenerator via a One-Step Molding Route. <i>Advanced Engineering Materials</i> , 2020, 22, 1901560.	1.6	15
16	Piezoelectric sensor based on graphene-doped PVDF nanofibers for sign language translation. <i>Beilstein Journal of Nanotechnology</i> , 2020, 11, 1655-1662.	1.5	10
17	A spongy electrode-brush-structured dual-mode triboelectric nanogenerator for harvesting mechanical energy and self-powered trajectory tracking. <i>Nano Energy</i> , 2020, 78, 105381.	8.2	53
18	Interdigital Structure Enhanced the Current Spreading and Light Output Power of GaN-Based Light Emitting Diodes. <i>IEEE Access</i> , 2020, 8, 105972-105979.	2.6	2

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19	A Movable Electrode Triboelectric Nanogenerator Fabricated Using a Pencil Lead for Self-Powered Locating Collision. <i>Advanced Engineering Materials</i> , 2020, 22, 2000109.	1.6	6
20	A Triboelectric Nanogenerator Consisting of Polytetrafluoroethylene (PTFE) Pellet for Self-Powered Detection of Mechanical Faults and Inclination in Dynamic Mechanics. <i>Energy Technology</i> , 2020, 8, 2000400.	1.8	9
21	1D Triboelectric Nanogenerator Operating by Repeatedly Stretching and as a Self-Powered Electronic Fence and Geological Monitor. <i>Advanced Materials Technologies</i> , 2020, 5, 1901005.	3.0	11
22	An In-Plane Sliding Triboelectric Nanogenerator with a Multielectrode Array for Self-Powered Dynamic Addressing and Trajectory Tracking. <i>Energy Technology</i> , 2020, 8, 2000155.	1.8	6
23	A self-powered stretchable sensor fabricated by serpentine PVDF film for multiple dynamic monitoring. <i>Materials and Design</i> , 2019, 182, 108025.	3.3	39
24	Wireless Power Transmission Enabled by a Triboelectric Nanogenerator via a Magnetic Interaction. <i>Energy Technology</i> , 2019, 7, 1900503.	1.8	15
25	A self-powered counter/timer based on a clock pointer-like frequency-tunable triboelectric nanogenerator for wind speed detecting. <i>Nano Energy</i> , 2019, 65, 104025.	8.2	43
26	Stretchable Micromotion Sensor with Enhanced Sensitivity Using Serpentine Layout. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 12261-12271.	4.0	56
27	Fully-Enclosed Metal Electrode-Free Triboelectric Nanogenerator for Scavenging Vibrational Energy and Alternatively Powering Personal Electronics. <i>Advanced Engineering Materials</i> , 2019, 21, 1800823.	1.6	21
28	Electrode-Free Triboelectric Nanogenerator for Harvesting Human Biomechanical Energy and as a Versatile Inartificial Physiological Monitor. <i>Energy Technology</i> , 2019, 7, 1800931.	1.8	23
29	Water Energy Harvesting and Self-Powered Visible Light Communication Based on Triboelectric Nanogenerator. <i>Energy Technology</i> , 2018, 6, 1929-1934.	1.8	16
30	Self-powered room temperature NO <sub>2</sub> detection driven by triboelectric nanogenerator under UV illumination. <i>Nano Energy</i> , 2018, 47, 316-324.	8.2	192
31	Human Body as a Power Source for Biomechanical Energy Scavenging Based on Electrode-Free Triboelectric Nanogenerators. <i>Energy Technology</i> , 2018, 6, 2053-2057.	1.8	10
32	Tailoring the energy band in flexible photodetector based on transferred ITO/Si heterojunction interface engineering. <i>Nanoscale</i> , 2018, 10, 3893-3903.	2.8	13
33	Hybrid nanogenerators for low frequency vibration energy harvesting and self-powered wireless locating. <i>Materials Research Express</i> , 2018, 5, 015510.	0.8	8
34	Intelligent Sensing System Based on Hybrid Nanogenerator by Harvesting Multiple Clean Energy. <i>Advanced Engineering Materials</i> , 2018, 20, 1700886.	1.6	23
35	Tube-based triboelectric nanogenerator for self-powered detecting blockage and monitoring air pressure. <i>Nano Energy</i> , 2018, 52, 71-77.	8.2	48
36	Highly stretchable and shape-controllable three-dimensional antenna fabricated by "Cut-Transfer-Release" method. <i>Scientific Reports</i> , 2017, 7, 42227.	1.6	20

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37	Smart network node based on hybrid nanogenerator for self-powered multifunctional sensing. <i>Nano Energy</i> , 2017, 33, 418-426.	8.2	79
38	Novel high-performance self-powered humidity detection enabled by triboelectric effect. <i>Sensors and Actuators B: Chemical</i> , 2017, 251, 144-152.	4.0	141
39	A Ferroelectric Ceramic/Polymer Composite-Based Capacitive Electrode Array for In Vivo Recordings. <i>Advanced Healthcare Materials</i> , 2017, 6, 1700305.	3.9	10
40	Fabrication of Ag nanoparticle catalyst supported on graphene for effective H <sub>2</sub> O <sub>2</sub> nonenzymatic detection powered by chemical energy. <i>Materials Research Express</i> , 2017, 4, 065020.	0.8	0
41	Highly sensitive pressure switch sensors and enhanced near ultraviolet photodetectors based on 3D hybrid film of graphene sheets decorated with silver nanoparticles. <i>RSC Advances</i> , 2017, 7, 27281-27289.	1.7	6
42	Flexible Triboelectric Nanogenerator Based on Carbon Nanotubes for Self-Powered Weighing. <i>Advanced Engineering Materials</i> , 2017, 19, 1600710.	1.6	42
43	Thermal Release Transfer Printing for Stretchable Conformal Bioelectronics. <i>Advanced Science</i> , 2017, 4, 1700251.	5.6	99
44	Highly efficient and stable electrooxidation of methanol and ethanol on 3D Pt catalyst by thermal decomposition of In <sub>2</sub> O <sub>3</sub> nanoshells. <i>Journal of Energy Chemistry</i> , 2017, 26, 193-199.	7.1	14
45	Wind energy harvesting and self-powered flow rate sensor enabled by contact electrification. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 215601.	1.3	39
46	Flexible pyroelectric generators for scavenging ambient thermal energy and as self-powered thermosensors. <i>Energy</i> , 2016, 101, 202-210.	4.5	41
47	Self-Powered, Wireless, Remote Meteorologic Monitoring Based on Triboelectric Nanogenerator Operated by Scavenging Wind Energy. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 32649-32654.	4.0	76
48	Reduced graphene oxide-polyethylene oxide hybrid films for toluene sensing at room temperature. <i>RSC Advances</i> , 2016, 6, 97840-97847.	1.7	41
49	Segmented wind energy harvester based on contact-electrification and as a self-powered flow rate sensor. <i>Chemical Physics Letters</i> , 2016, 653, 96-100.	1.2	23
50	Enhancing responsivity of ZnO nanowire based photodetectors by piezo-phototronic effect. <i>Sensors and Actuators A: Physical</i> , 2016, 241, 169-175.	2.0	22
51	Simultaneously Harvesting Thermal and Mechanical Energies based on Flexible Hybrid Nanogenerator for Self-Powered Cathodic Protection. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 28142-28147.	4.0	68
52	3D Pt/MoO <sub>3</sub> nanocatalysts fabricated for effective electrocatalytic oxidation of alcohol. <i>Applied Surface Science</i> , 2015, 356, 294-300.	3.1	25
53	Highly stretchable, sensitive, and flexible strain sensors based on silver nanoparticles/carbon nanotubes composites. <i>Journal of Alloys and Compounds</i> , 2015, 652, 48-54.	2.8	130
54	Construction of 3D Pt Catalysts Supported on Co-Doped SnO <sub>2</sub> Nanourchins for Methanol and Ethanol Electrooxidation. <i>Journal of the Electrochemical Society</i> , 2015, 162, F92-F97.	1.3	9

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55	Synthesis of 1D Sb <sub>2</sub> S <sub>3</sub> nanostructures and its application in visible-light-driven photodegradation for MO. Journal of Alloys and Compounds, 2015, 625, 90-94.	2.8	43
56	Direct-Current Triboelectric Generator. Advanced Functional Materials, 2014, 24, 3745-3750.	7.8	147
57	Broadband Vibrational Energy Harvesting Based on a Triboelectric Nanogenerator. Advanced Energy Materials, 2014, 4, 1301322.	10.2	280
58	Fully Enclosed Cylindrical Single-Electrode-Based Triboelectric Nanogenerator. ACS Applied Materials & Interfaces, 2014, 6, 553-559.	4.0	100
59	Applicability of triboelectric generator over a wide range of temperature. Nano Energy, 2014, 4, 150-156.	8.2	135
60	Electret Film-Enhanced Triboelectric Nanogenerator Matrix for Self-Powered Instantaneous Tactile Imaging. ACS Applied Materials & Interfaces, 2014, 6, 3680-3688.	4.0	118
61	Photocatalytic Activity of ZnWO <sub>4</sub> : Band Structure, Morphology and Surface Modification. ACS Applied Materials & Interfaces, 2014, 6, 14423-14432.	4.0	100
62	Single-Electrode-Based Rotating Triboelectric Nanogenerator for Harvesting Energy from Tires. ACS Nano, 2014, 8, 680-689.	7.3	182
63	Triboelectric Nanogenerator for Harvesting Vibration Energy in Full Space and as Self-Powered Acceleration Sensor. Advanced Functional Materials, 2014, 24, 1401-1407.	7.8	381
64	A hybrid energy cell for self-powered water splitting. Energy and Environmental Science, 2013, 6, 2429.	15.6	162
65	Hybrid Energy Cell for Degradation of Methyl Orange by Self-Powered Electrocatalytic Oxidation. Nano Letters, 2013, 13, 803-808.	4.5	141
66	Triboelectric nanogenerator as self-powered active sensors for detecting liquid/gaseous water/ethanol. Nano Energy, 2013, 2, 693-701.	8.2	250
67	Human Skin Based Triboelectric Nanogenerators for Harvesting Biomechanical Energy and as Self-Powered Active Tactile Sensor System. ACS Nano, 2013, 7, 9213-9222.	7.3	667
68	Single-Electrode-Based Sliding Triboelectric Nanogenerator for Self-Powered Displacement Vector Sensor System. ACS Nano, 2013, 7, 7342-7351.	7.3	523
69	Enhanced photodegradation of methyl orange with TiO <sub>2</sub> nanoparticles using a triboelectric nanogenerator. Nanotechnology, 2013, 24, 295401.	1.3	88
70	Triboelectric nanogenerator built inside shoe insole for harvesting walking energy. Nano Energy, 2013, 2, 856-862.	8.2	337
71	Triboelectric Nanogenerator for Harvesting Wind Energy and as Self-Powered Wind Vector Sensor System. ACS Nano, 2013, 7, 9461-9468.	7.3	524
72	Fully Enclosed Triboelectric Nanogenerators for Applications in Water and Harsh Environments. Advanced Energy Materials, 2013, 3, 1563-1568.	10.2	137

#	ARTICLE	IF	CITATIONS
73	Large-scale synthesis and photoluminescence of cobalt tungstate nanowires. <i>Physical Review B</i> , 2013, 87, .	1.1	19
74	Simultaneously harvesting mechanical and chemical energies by a hybrid cell for self-powered biosensors and personal electronics. <i>Energy and Environmental Science</i> , 2013, 6, 1744.	15.6	129
75	Flexible Hybrid Energy Cell for Simultaneously Harvesting Thermal, Mechanical, and Solar Energies. <i>ACS Nano</i> , 2013, 7, 785-790.	7.3	239
76	Triboelectric nanogenerator built inside clothes for self-powered glucose biosensors. <i>Nano Energy</i> , 2013, 2, 1019-1024.	8.2	212
77	Synthesis and magnetic properties of Sn <sup>1+</sup> Co O <sub>2</sub> nanostructures and their application in gas sensing. <i>Sensors and Actuators B: Chemical</i> , 2013, 184, 288-294.	4.0	30
78	Silicon-Based Hybrid Energy Cell for Self-Powered Electrodegradation and Personal Electronics. <i>ACS Nano</i> , 2013, 7, 2808-2813.	7.3	125
79	A Single-Electrode Based Triboelectric Nanogenerator as Self-Powered Tracking System. <i>Advanced Materials</i> , 2013, 25, 6594-6601.	11.1	299
80	Size-tunable synthesis and structure analysis of BaMnO <sub>3</sub> nanorods. <i>Micro and Nano Letters</i> , 2012, 7, 885-888.	0.6	5
81	Synthesis and photosensitivity of SnS nanobelts. <i>Journal of Alloys and Compounds</i> , 2012, 513, 1-5.	2.8	39
82	Synthesis of SnO <sub>2</sub> Nanostructures and Their Application for Hydrogen Evolution Reaction. <i>Catalysis Letters</i> , 2012, 142, 809-815.	1.4	22
83	Effective solar absorption and radial microchannels of SnO <sub>2</sub> hierarchical structure for high photocatalytic activity. <i>Catalysis Communications</i> , 2011, 14, 32-36.	1.6	77
84	Synthesis of BaCO <sub>3</sub> Nanowires and Their Humidity Sensitive Property. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 10706-10709.	0.9	7
85	Pt support of multidimensional active sites and radial channels formed by SnO <sub>2</sub> flower-like crystals for methanol and ethanol oxidation. <i>Journal of Power Sources</i> , 2011, 196, 4499-4505.	4.0	65
86	UV sensor based on TiO <sub>2</sub> nanorod arrays on FTO thin film. <i>Sensors and Actuators B: Chemical</i> , 2011, 156, 114-119.	4.0	179
87	SnO <sub>2</sub> ; Nanorods for Light Sensor and UV Detector. <i>Sensor Letters</i> , 2011, 9, 1643-1648.	0.4	5
88	Optical switches based on CdS single nanowire. <i>Materials Research Bulletin</i> , 2010, 45, 1476-1480.	2.7	31
89	Synthesis of BaO nanowires and their humidity sensitive property. , 2010, , .		0