Hulin Zhang

List of Publications by Year
in descending order

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89 papers	7,639 citations	70961 41 h-index	51492 86 g-index
91 all docs	91 docs citations	91 times ranked	6356 citing authors

#	Article	IF	Citations
1	Enhanced piezoelectric performance of multi-layered flexible polyvinylidene fluorideâ€“BaTiO3â€“rGO films for monitoring human body motions. Journal of Materials Science: Materials in Electronics, 2022, 33, 4291-4304.	1.1	9
2	Surface Functionalization, Bioanalysis, and Applications: Progress of New Magnetoelastic Biosensors. Advanced Engineering Materials, 2022, 24, .	1.6	5
3	Thermogalvanic hydrogels for self-powered temperature monitoring in extreme environments. Journal of Materials Chemistry C, 2022, 10, 13789-13796.	2.7	19
4	Wearable Electronics Powered by Triboelectrification between Hair and Cloth for Monitoring Body Motions. Energy Technology, 2022, 10, .	1.8	10
5	A Triboelectric Pistonâ€“Cylinder Assembly with Conditionâ€Monitoring and Selfâ€Powering Capabilities. Energy Technology, 2022, 10, .	1.8	2
6	Preparation and Catalytic Performance of Amidoximated Polyacrylonitrile Bimodal Nanofiber Iron Complexes. Fibers and Polymers, 2022, 23, 1244-1255.	1.1	1
7	Recent advancements for improving the performance of triboelectric nanogenerator devices. Nano Energy, 2022, 99, 107318.	8.2	76
8	Transparent stretchable thermogalvanic PVA/gelation hydrogel electrolyte for harnessing solar energy enabled by a binary solvent strategy. Nano Energy, 2022, 100, 107449.	8.2	32
9	Wearable Electronics Based on the Gel Thermogalvanic Electrolyte for Self-Powered Human Health Monitoring. ACS Applied Materials & Interfaces, 2021, 13, 37316-37322.	4.0	75
10	Human body-based self-powered wearable electronics for promoting wound healing driven by biomechanical motions. Nano Energy, 2021, 89, 106465.	8.2	55
11	Magnetorheological Elastomer-Based Self-Powered Triboelectric Nanosensor for Monitoring Magnetic Field. Nanomaterials, 2021, 11, 2815.	1.9	6
12	Self-Powered Air Filter Based on an Electrospun Respiratory Triboelectric Nanogenerator. ACS Applied Energy Materials, 2021, 4, 14700-14708.	2.5	28
13	Building selfâ€powered emergency electronics based on hybrid nanogenerators for field survival/rescue. Energy Science and Engineering, 2020, 8, 574-581.	1.9	5
14	Cylinderâ€based hybrid rotary nanogenerator for harvesting rotational energy from axles and selfâ€powered tire pressure monitoring. Energy Science and Engineering, 2020, 8, 291-299.	1.9	14
15	A Voiceprint Recognition Sensor Based on a Fully 3Dâ€Printed Triboelectric Nanogenerator via a Oneâ€Step Molding Route. Advanced Engineering Materials, 2020, 22, 1901560.	1.6	15
16	Piezoelectric sensor based on graphene-doped PVDF nanofibers for sign language translation. Beilstein Journal of Nanotechnology, 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. Nano Energy, 2020, 78, 105381.	8.2	53
18	Interdigital Structure Enhanced the Current Spreading and Light Output Power of GaN-Based Light Emitting Diodes. IEEE Access, 2020, 8, 105972-105979.	2.6	2

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19	A Movable Electrode Triboelectric Nanogenerator Fabricated Using a Pencil Lead for Selfâ€Powered Locating Collision. Advanced Engineering Materials, 2020, 22, 2000109.	1.6	6
20	A Triboelectric Nanogenerator Consisting of Polytetrafluoroethylene (PTFE) Pellet for Selfâ€Powered Detection of Mechanical Faults and Inclination in Dynamic Mechanics. Energy Technology, 2020, 8, 2000400.	1.8	9
21	1D Triboelectric Nanogenerator Operating by Repeatedly Stretching and as a Selfâ€Powered Electronic Fence and Geological Monitor. Advanced Materials Technologies, 2020, 5, 1901005.	3.0	11
22	An Inâ€Plane Sliding Triboelectric Nanogenerator with a Multielectrode Array for Selfâ€Powered Dynamic Addressing and Trajectory Tracking. Energy Technology, 2020, 8, 2000155.	1.8	6
23	A self-powered stretchable sensor fabricated by serpentine PVDF film for multiple dynamic monitoring. Materials and Design, 2019, 182, 108025.	3.3	39
24	Wireless Power Transmission Enabled by a Triboelectric Nanogenerator via a Magnetic Interaction. Energy Technology, 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. Nano Energy, 2019, 65, 104025.	8.2	43
26	Stretchable Micromotion Sensor with Enhanced Sensitivity Using Serpentine Layout. ACS Applied Materials & Interfaces, 2019, 11, 12261-12271.	4.0	56
27	Fullyâ€Enclosed Metal Electrodeâ€Free Triboelectric Nanogenerator for Scavenging Vibrational Energy and Alternatively Powering Personal Electronics. Advanced Engineering Materials, 2019, 21, 1800823.	1.6	21
28	Electrodeâ€Free Triboelectric Nanogenerator for Harvesting Human Biomechanical Energy and as a Versatile Inartificial Physiological Monitor. Energy Technology, 2019, 7, 1800931.	1.8	23
29	Water Energy Harvesting and Selfâ€Powered Visible Light Communication Based on Triboelectric Nanogenerator. Energy Technology, 2018, 6, 1929-1934.	1.8	16
30	Self-powered room temperature NO2 detection driven by triboelectric nanogenerator under UV illumination. Nano Energy, 2018, 47, 316-324.	8.2	192
31	Human Body as a Power Source for Biomechanical Energy Scavenging Based on Electrodeâ€Free Triboelectric Nanogenerators. Energy Technology, 2018, 6, 2053-2057.	1.8	10
32	Tailoring the energy band in flexible photodetector based on transferred ITO/Si heterojunction via interface engineering. Nanoscale, 2018, 10, 3893-3903.	2.8	13
33	Hybrid nanogenerators for low frequency vibration energy harvesting and self-powered wireless locating. Materials Research Express, 2018, 5, 015510.	0.8	8
34	Intelligent Sensing System Based on Hybrid Nanogenerator by Harvesting Multiple Clean Energy. Advanced Engineering Materials, 2018, 20, 1700886.	1.6	23
35	Tube-based triboelectric nanogenerator for self-powered detecting blockage and monitoring air pressure. Nano Energy, 2018, 52, 71-77.	8.2	48
36	Highly stretchable and shape-controllable three-dimensional antenna fabricated by â€œCut-Transfer-Releaseâ€•method. Scientific Reports, 2017, 7, 42227.	1.6	20

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37	Smart network node based on hybrid nanogenerator for self-powered multifunctional sensing. Nano Energy, 2017, 33, 418-426.	8.2	79
38	Novel high-performance self-powered humidity detection enabled by triboelectric effect. Sensors and Actuators B: Chemical, 2017, 251, 144-152.	4.0	141
39	A Ferroelectric Ceramic/Polymer Compositeâ€Based Capacitive Electrode Array for In Vivo Recordings. Advanced Healthcare Materials, 2017, 6, 1700305.	3.9	10
40	Fabrication of Ag nanoparticle catalyst supported on graphene for effective H2O2 nonenzymatic detection powered by chemical energy. Materials Research Express, 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. RSC Advances, 2017, 7, 27281-27289.	1.7	6
42	Flexible Triboelectric Nanogenerator Based on Carbon Nanotubes for Selfâ€Powered Weighing. Advanced Engineering Materials, 2017, 19, 1600710.	1.6	42
43	Thermal Release Transfer Printing for Stretchable Conformal Bioelectronics. Advanced Science, 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 2 O 3 nanoshells. Journal of Energy Chemistry, 2017, 26, 193-199.	7.1	14
45	Wind energy harvesting and self-powered flow rate sensor enabled by contact electrification. Journal Physics D: Applied Physics, 2016, 49, 215601.	1.3	39
46	Flexible pyroelectric generators for scavenging ambient thermal energy and as self-powered thermosensors. Energy, 2016, 101, 202-210.	4.5	41
47	Self-Powered, Wireless, Remote Meteorologic Monitoring Based on Triboelectric Nanogenerator Operated by Scavenging Wind Energy. ACS Applied Materials & Interfaces, 2016, 8, 32649-32654.	4.0	76
48	Reduced graphene oxideâ€“polyethylene oxide hybrid films for toluene sensing at room temperature. RSC Advances, 2016, 6, 97840-97847.	1.7	41
49	Segmented wind energy harvester based on contact-electrification and as a self-powered flow rate sensor. Chemical Physics Letters, 2016, 653, 96-100.	1.2	23
50	Enhancing responsivity of ZnO nanowire based photodetectors by piezo-phototronic effect. Sensors and Actuators A: Physical, 2016, 241, 169-175.	2.0	22
51	Simultaneously Harvesting Thermal and Mechanical Energies based on Flexible Hybrid Nanogenerator for Self-Powered Cathodic Protection. ACS Applied Materials & Interfaces, 2015, 7, 28142-28147.	4.0	68
52	3D Pt/MoO 3 nanocatalysts fabricated for effective electrocatalytic oxidation of alcohol. Applied Surface Science, 2015, 356, 294-300.	3.1	25
53	Highly stretchable, sensitive, and flexible strain sensors based on silver nanoparticles/carbon nanotubes composites. Journal of Alloys and Compounds, 2015, 652, 48-54.	2.8	130
54	Construction of 3D Pt Catalysts Supported on Co-Doped SnO₂Nanourchins for Methanol and Ethanol Electrooxidation. Journal of the Electrochemical Society, 2015, 162, F92-F97.	1.3	9

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55	Synthesis of 1D Sb2S3 nanostructures and its application in visible-light-driven photodegradation for MO. Journal of Alloys and Compounds, 2015, 625, 90-94.	2.8	43
56	Directâ€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 ZnWO₄: 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 Selfâ€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 TiO₂nanoparticles 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

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73	Large-scale synthesis and photoluminescence of cobalt tungstate nanowires. Physical Review B, 2013, 87, .	1.1	19
74	Simultaneously harvesting mechanical and chemical energies by a hybrid cell for self-powered biosensors and personal electronics. Energy and Environmental Science, 2013, 6, 1744.	15.6	129
75	Flexible Hybrid Energy Cell for Simultaneously Harvesting Thermal, Mechanical, and Solar Energies. ACS Nano, 2013, 7, 785-790.	7.3	239
76	Triboelectric nanogenerator built inside clothes for self-powered glucose biosensors. Nano Energy, 2013, 2, 1019-1024.	8.2	212
77	Synthesis and magnetic properties of Sn1â^'Co O2 nanostructures and their application in gas sensing. Sensors and Actuators B: Chemical, 2013, 184, 288-294.	4.0	30
78	Silicon-Based Hybrid Energy Cell for Self-Powered Electrodegradation and Personal Electronics. ACS Nano, 2013, 7, 2808-2813.	7.3	125
79	A Singleâ€Electrode Based Triboelectric Nanogenerator as Selfâ€Powered Tracking System. Advanced Materials, 2013, 25, 6594-6601.	11.1	299
80	Size-tunable synthesis and structure analysis of BaMnO3 nanorods. Micro and Nano Letters, 2012, 7, 885-888.	0.6	5
81	Synthesis and photosensitivity of SnS nanobelts. Journal of Alloys and Compounds, 2012, 513, 1-5.	2.8	39
82	Synthesis of SnO2 Nanostructures and Their Application for Hydrogen Evolution Reaction. Catalysis Letters, 2012, 142, 809-815.	1.4	22
83	Effective solar absorption and radial microchannels of SnO2 hierarchical structure for high photocatalytic activity. Catalysis Communications, 2011, 14, 32-36.	1.6	77
84	Synthesis of BaCO₃ Nanowires and Their Humidity Sensitive Property. Journal of Nanoscience and Nanotechnology, 2011, 11, 10706-10709.	0.9	7
85	Pt support of multidimensional active sites and radial channels formed by SnO2 flower-like crystals for methanol and ethanol oxidation. Journal of Power Sources, 2011, 196, 4499-4505.	4.0	65
86	UV sensor based on TiO2 nanorod arrays on FTO thin film. Sensors and Actuators B: Chemical, 2011, 156, 114-119.	4.0	179
87	SnO₂ Nanorods for Light Sensor and UV Detector. Sensor Letters, 2011, 9, 1643-1648.	0.4	5
88	Optical switches based on CdS single nanowire. Materials Research Bulletin, 2010, 45, 1476-1480.	2.7	31
89	Synthesis of BaO nanowires and their humidity sensitive property. , 2010, , .		0