

Hulin Zhang

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9526570/publications.pdf>

Version: 2024-02-01

89
papers

7,639
citations

71102

41
h-index

49909

87
g-index

91
all docs

91
docs citations

91
times ranked

6356
citing authors

#	ARTICLE	IF	CITATIONS
1	Human Skin Based Triboelectric Nanogenerators for Harvesting Biomechanical Energy and as Self-Powered Active Tactile Sensor System. ACS Nano, 2013, 7, 9213-9222.	14.6	667
2	Triboelectric Nanogenerator for Harvesting Wind Energy and as Self-Powered Wind Vector Sensor System. ACS Nano, 2013, 7, 9461-9468.	14.6	524
3	Single-Electrode-Based Sliding Triboelectric Nanogenerator for Self-Powered Displacement Vector Sensor System. ACS Nano, 2013, 7, 7342-7351.	14.6	523
4	Triboelectric Nanogenerator for Harvesting Vibration Energy in Full Space and as Self-Powered Acceleration Sensor. Advanced Functional Materials, 2014, 24, 1401-1407.	14.9	381
5	Triboelectric nanogenerator built inside shoe insole for harvesting walking energy. Nano Energy, 2013, 2, 856-862.	16.0	337
6	A Single-Electrode Based Triboelectric Nanogenerator as Self-Powered Tracking System. Advanced Materials, 2013, 25, 6594-6601.	21.0	299
7	Broadband Vibrational Energy Harvesting Based on a Triboelectric Nanogenerator. Advanced Energy Materials, 2014, 4, 1301322.	19.5	280
8	Triboelectric nanogenerator as self-powered active sensors for detecting liquid/gaseous water/ethanol. Nano Energy, 2013, 2, 693-701.	16.0	250
9	Flexible Hybrid Energy Cell for Simultaneously Harvesting Thermal, Mechanical, and Solar Energies. ACS Nano, 2013, 7, 785-790.	14.6	239
10	Triboelectric nanogenerator built inside clothes for self-powered glucose biosensors. Nano Energy, 2013, 2, 1019-1024.	16.0	212
11	Self-powered room temperature NO ₂ detection driven by triboelectric nanogenerator under UV illumination. Nano Energy, 2018, 47, 316-324.	16.0	192
12	Single-Electrode-Based Rotating Triboelectric Nanogenerator for Harvesting Energy from Tires. ACS Nano, 2014, 8, 680-689.	14.6	182
13	UV sensor based on TiO ₂ nanorod arrays on FTO thin film. Sensors and Actuators B: Chemical, 2011, 156, 114-119.	7.8	179
14	A hybrid energy cell for self-powered water splitting. Energy and Environmental Science, 2013, 6, 2429.	30.8	162
15	Direct-Current Triboelectric Generator. Advanced Functional Materials, 2014, 24, 3745-3750.	14.9	147
16	Hybrid Energy Cell for Degradation of Methyl Orange by Self-Powered Electrocatalytic Oxidation. Nano Letters, 2013, 13, 803-808.	9.1	141
17	Novel high-performance self-powered humidity detection enabled by triboelectric effect. Sensors and Actuators B: Chemical, 2017, 251, 144-152.	7.8	141
18	Fully Enclosed Triboelectric Nanogenerators for Applications in Water and Harsh Environments. Advanced Energy Materials, 2013, 3, 1563-1568.	19.5	137

#	ARTICLE	IF	CITATIONS
19	Applicability of triboelectric generator over a wide range of temperature. <i>Nano Energy</i> , 2014, 4, 150-156.	16.0	135
20	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.	5.5	130
21	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.	30.8	129
22	Silicon-Based Hybrid Energy Cell for Self-Powered Electrodegradation and Personal Electronics. <i>ACS Nano</i> , 2013, 7, 2808-2813.	14.6	125
23	Electret Film-Enhanced Triboelectric Nanogenerator Matrix for Self-Powered Instantaneous Tactile Imaging. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 3680-3688.	8.0	118
24	Fully Enclosed Cylindrical Single-Electrode-Based Triboelectric Nanogenerator. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 553-559.	8.0	100
25	Photocatalytic Activity of ZnWO ₄ : Band Structure, Morphology and Surface Modification. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 14423-14432.	8.0	100
26	Thermal Release Transfer Printing for Stretchable Conformal Bioelectronics. <i>Advanced Science</i> , 2017, 4, 1700251.	11.2	99
27	Enhanced photodegradation of methyl orange with TiO ₂ nanoparticles using a triboelectric nanogenerator. <i>Nanotechnology</i> , 2013, 24, 295401.	2.6	88
28	Smart network node based on hybrid nanogenerator for self-powered multifunctional sensing. <i>Nano Energy</i> , 2017, 33, 418-426.	16.0	79
29	Effective solar absorption and radial microchannels of SnO ₂ hierarchical structure for high photocatalytic activity. <i>Catalysis Communications</i> , 2011, 14, 32-36.	3.3	77
30	Self-Powered, Wireless, Remote Meteorologic Monitoring Based on Triboelectric Nanogenerator Operated by Scavenging Wind Energy. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 32649-32654.	8.0	76
31	Recent advancements for improving the performance of triboelectric nanogenerator devices. <i>Nano Energy</i> , 2022, 99, 107318.	16.0	76
32	Wearable Electronics Based on the Gel Thermogalvanic Electrolyte for Self-Powered Human Health Monitoring. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 37316-37322.	8.0	75
33	Simultaneously Harvesting Thermal and Mechanical Energies based on Flexible Hybrid Nanogenerator for Self-Powered Cathodic Protection. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 28142-28147.	8.0	68
34	Pt support of multidimensional active sites and radial channels formed by SnO ₂ flower-like crystals for methanol and ethanol oxidation. <i>Journal of Power Sources</i> , 2011, 196, 4499-4505.	7.8	65
35	Stretchable Micromotion Sensor with Enhanced Sensitivity Using Serpentine Layout. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 12261-12271.	8.0	56
36	Human body-based self-powered wearable electronics for promoting wound healing driven by biomechanical motions. <i>Nano Energy</i> , 2021, 89, 106465.	16.0	55

#	ARTICLE	IF	CITATIONS
37	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.	16.0	53
38	Tube-based triboelectric nanogenerator for self-powered detecting blockage and monitoring air pressure. <i>Nano Energy</i> , 2018, 52, 71-77.	16.0	48
39	Synthesis of 1D Sb ₂ S ₃ nanostructures and its application in visible-light-driven photodegradation for MO. <i>Journal of Alloys and Compounds</i> , 2015, 625, 90-94.	5.5	43
40	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.	16.0	43
41	Flexible Triboelectric Nanogenerator Based on Carbon Nanotubes for Self-Powered Weighing. <i>Advanced Engineering Materials</i> , 2017, 19, 1600710.	3.5	42
42	Flexible pyroelectric generators for scavenging ambient thermal energy and as self-powered thermosensors. <i>Energy</i> , 2016, 101, 202-210.	8.8	41
43	Reduced graphene oxide-polyethylene oxide hybrid films for toluene sensing at room temperature. <i>RSC Advances</i> , 2016, 6, 97840-97847.	3.6	41
44	Synthesis and photosensitivity of SnS nanobelts. <i>Journal of Alloys and Compounds</i> , 2012, 513, 1-5.	5.5	39
45	Wind energy harvesting and self-powered flow rate sensor enabled by contact electrification. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 215601.	2.8	39
46	A self-powered stretchable sensor fabricated by serpentine PVDF film for multiple dynamic monitoring. <i>Materials and Design</i> , 2019, 182, 108025.	7.0	39
47	Transparent stretchable thermogalvanic PVA/gelation hydrogel electrolyte for harnessing solar energy enabled by a binary solvent strategy. <i>Nano Energy</i> , 2022, 100, 107449.	16.0	32
48	Optical switches based on CdS single nanowire. <i>Materials Research Bulletin</i> , 2010, 45, 1476-1480.	5.2	31
49	Synthesis and magnetic properties of Sn _{1-x} Co _x O ₂ nanostructures and their application in gas sensing. <i>Sensors and Actuators B: Chemical</i> , 2013, 184, 288-294.	7.8	30
50	Self-Powered Air Filter Based on an Electrospun Respiratory Triboelectric Nanogenerator. <i>ACS Applied Energy Materials</i> , 2021, 4, 14700-14708.	5.1	28
51	3D Pt/MoO ₃ nanocatalysts fabricated for effective electrocatalytic oxidation of alcohol. <i>Applied Surface Science</i> , 2015, 356, 294-300.	6.1	25
52	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.	2.6	23
53	Intelligent Sensing System Based on Hybrid Nanogenerator by Harvesting Multiple Clean Energy. <i>Advanced Engineering Materials</i> , 2018, 20, 1700886.	3.5	23
54	Electrode-Free Triboelectric Nanogenerator for Harvesting Human Biomechanical Energy and as a Versatile Inartificial Physiological Monitor. <i>Energy Technology</i> , 2019, 7, 1800931.	3.8	23

#	ARTICLE	IF	CITATIONS
55	Synthesis of SnO ₂ Nanostructures and Their Application for Hydrogen Evolution Reaction. <i>Catalysis Letters</i> , 2012, 142, 809-815.	2.6	22
56	Enhancing responsivity of ZnO nanowire based photodetectors by piezo-phototronic effect. <i>Sensors and Actuators A: Physical</i> , 2016, 241, 169-175.	4.1	22
57	Fully Enclosed Metal Electrode-Free Triboelectric Nanogenerator for Scavenging Vibrational Energy and Alternatively Powering Personal Electronics. <i>Advanced Engineering Materials</i> , 2019, 21, 1800823.	3.5	21
58	Highly stretchable and shape-controllable three-dimensional antenna fabricated by a Cut-Transfer-Release method. <i>Scientific Reports</i> , 2017, 7, 42227.	3.3	20
59	Large-scale synthesis and photoluminescence of cobalt tungstate nanowires. <i>Physical Review B</i> , 2013, 87, .	3.2	19
60	Thermogalvanic hydrogels for self-powered temperature monitoring in extreme environments. <i>Journal of Materials Chemistry C</i> , 2022, 10, 13789-13796.	5.5	19
61	Water Energy Harvesting and Self-Powered Visible Light Communication Based on Triboelectric Nanogenerator. <i>Energy Technology</i> , 2018, 6, 1929-1934.	3.8	16
62	Wireless Power Transmission Enabled by a Triboelectric Nanogenerator via a Magnetic Interaction. <i>Energy Technology</i> , 2019, 7, 1900503.	3.8	15
63	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.	3.5	15
64	Highly efficient and stable electrooxidation of methanol and ethanol on 3D Pt catalyst by thermal decomposition of In ₂ O ₃ nanoshells. <i>Journal of Energy Chemistry</i> , 2017, 26, 193-199.	12.9	14
65	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.	4.0	14
66	Tailoring the energy band in flexible photodetector based on transferred ITO/Si heterojunction via interface engineering. <i>Nanoscale</i> , 2018, 10, 3893-3903.	5.6	13
67	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.	5.8	11
68	A Ferroelectric Ceramic/Polymer Composite-Based Capacitive Electrode Array for In Vivo Recordings. <i>Advanced Healthcare Materials</i> , 2017, 6, 1700305.	7.6	10
69	Human Body as a Power Source for Biomechanical Energy Scavenging Based on Electrode-Free Triboelectric Nanogenerators. <i>Energy Technology</i> , 2018, 6, 2053-2057.	3.8	10
70	Piezoelectric sensor based on graphene-doped PVDF nanofibers for sign language translation. <i>Beilstein Journal of Nanotechnology</i> , 2020, 11, 1655-1662.	2.8	10
71	Wearable Electronics Powered by Triboelectrification between Hair and Cloth for Monitoring Body Motions. <i>Energy Technology</i> , 2022, 10, .	3.8	10
72	Construction of 3D Pt Catalysts Supported on Co-Doped SnO ₂ Nanourchins for Methanol and Ethanol Electrooxidation. <i>Journal of the Electrochemical Society</i> , 2015, 162, F92-F97.	2.9	9

#	ARTICLE	IF	CITATIONS
73	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.	3.8	9
74	Enhanced piezoelectric performance of multi-layered flexible polyvinylidene fluoride/BaTiO ₃ /rGO films for monitoring human body motions. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 4291-4304.	2.2	9
75	Hybrid nanogenerators for low frequency vibration energy harvesting and self-powered wireless locating. <i>Materials Research Express</i> , 2018, 5, 015510.	1.6	8
76	Synthesis of BaCO ₃ Nanowires and Their Humidity Sensitive Property. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 10706-10709.	0.9	7
77	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.	3.6	6
78	A Movable Electrode Triboelectric Nanogenerator Fabricated Using a Pencil Lead for Self-Powered Locating Collision. <i>Advanced Engineering Materials</i> , 2020, 22, 2000109.	3.5	6
79	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.	3.8	6
80	Magnetorheological Elastomer-Based Self-Powered Triboelectric Nanosensor for Monitoring Magnetic Field. <i>Nanomaterials</i> , 2021, 11, 2815.	4.1	6
81	Size-tunable synthesis and structure analysis of BaMnO ₃ nanorods. <i>Micro and Nano Letters</i> , 2012, 7, 885-888.	1.3	5
82	Building self-powered emergency electronics based on hybrid nanogenerators for field survival/rescue. <i>Energy Science and Engineering</i> , 2020, 8, 574-581.	4.0	5
83	SnO ₂ Nanorods for Light Sensor and UV Detector. <i>Sensor Letters</i> , 2011, 9, 1643-1648.	0.4	5
84	Surface Functionalization, Bioanalysis, and Applications: Progress of New Magnetoelastic Biosensors. <i>Advanced Engineering Materials</i> , 2022, 24, .	3.5	5
85	Interdigital Structure Enhanced the Current Spreading and Light Output Power of GaN-Based Light Emitting Diodes. <i>IEEE Access</i> , 2020, 8, 105972-105979.	4.2	2
86	A Triboelectric Piston-Cylinder Assembly with Condition-Monitoring and Self-Powering Capabilities. <i>Energy Technology</i> , 2022, 10, .	3.8	2
87	Preparation and Catalytic Performance of Amidoximated Polyacrylonitrile Bimodal Nanofiber Iron Complexes. <i>Fibers and Polymers</i> , 2022, 23, 1244-1255.	2.1	1
88	Synthesis of BaO nanowires and their humidity sensitive property. , 2010, , .		0
89	Fabrication of Ag nanoparticle catalyst supported on graphene for effective H ₂ O ₂ nonenzymatic detection powered by chemical energy. <i>Materials Research Express</i> , 2017, 4, 065020.	1.6	0