

Yong Qin

List of Publications by Year in descending order

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115
papers

11,303
citations

47006

47
h-index

28297

105
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117
all docs

117
docs citations

117
times ranked

11426
citing authors

#	ARTICLE	IF	CITATIONS
1	Microfibreâ€“nanowire hybrid structure for energy scavenging. <i>Nature</i> , 2008, 451, 809-813.	27.8	1,480
2	Self-powered nanowire devices. <i>Nature Nanotechnology</i> , 2010, 5, 366-373.	31.5	1,462
3	Power generation with laterally packaged piezoelectric fine wires. <i>Nature Nanotechnology</i> , 2009, 4, 34-39.	31.5	859
4	Converting Biomechanical Energy into Electricity by a Muscle-Movement-Driven Nanogenerator. <i>Nano Letters</i> , 2009, 9, 1201-1205.	9.1	441
5	New-generation integrated devices based on dye-sensitized and perovskite solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 476-526.	30.8	364
6	Lead Zirconate Titanate Nanowire Textile Nanogenerator for Wearable Energy-Harvesting and Self-Powered Devices. <i>ACS Nano</i> , 2012, 6, 6231-6235.	14.6	339
7	Dynamic Behavior of the Triboelectric Charges and Structural Optimization of the Friction Layer for a Triboelectric Nanogenerator. <i>ACS Nano</i> , 2016, 10, 6131-6138.	14.6	306
8	Highâ€“Performance Integrated ZnO Nanowire UV Sensors on Rigid and Flexible Substrates. <i>Advanced Functional Materials</i> , 2011, 21, 4464-4469.	14.9	293
9	Piezotronic Effect Enhanced Photocatalysis in Strained Anisotropic ZnO/TiO ₂ Nanoplatelets via Thermal Stress. <i>ACS Nano</i> , 2016, 10, 2636-2643.	14.6	258
10	Flexible Fiber Nanogenerator with 209 V Output Voltage Directly Powers a Light-Emitting Diode. <i>Nano Letters</i> , 2013, 13, 91-94.	9.1	254
11	Lateral nanowire/nanobelt based nanogenerators, piezotronics and piezo-phototronics. <i>Materials Science and Engineering Reports</i> , 2010, 70, 320-329.	31.8	223
12	An electrospun nanowire-based triboelectric nanogenerator and its application in a fully self-powered UV detector. <i>Nanoscale</i> , 2014, 6, 7842-7846.	5.6	209
13	A self-improving triboelectric nanogenerator with improved charge density and increased charge accumulation speed. <i>Nature Communications</i> , 2018, 9, 3773.	12.8	207
14	Recent advance in new-generation integrated devices for energy harvesting and storage. <i>Nano Energy</i> , 2019, 60, 600-619.	16.0	190
15	Flexoelectronics of centrosymmetric semiconductors. <i>Nature Nanotechnology</i> , 2020, 15, 661-667.	31.5	175
16	Flexible electronic skins based on piezoelectric nanogenerators and piezotronics. <i>Nano Energy</i> , 2019, 59, 84-90.	16.0	171
17	Enhancing the current density of a piezoelectric nanogenerator using a three-dimensional intercalation electrode. <i>Nature Communications</i> , 2020, 11, 1030.	12.8	158
18	High performance sound driven triboelectric nanogenerator for harvesting noise energy. <i>Nano Energy</i> , 2015, 15, 321-328.	16.0	138

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19	Wearable Triboelectric Generator for Powering the Portable Electronic Devices. ACS Applied Materials & Interfaces, 2015, 7, 18225-18230.	8.0	133
20	Growth of Horizontal ZnO Nanowire Arrays on Any Substrate. Journal of Physical Chemistry C, 2008, 112, 18734-18736.	3.1	122
21	Enhancing the performance of triboelectric nanogenerator through prior-charge injection and its application on self-powered anticorrosion. Nano Energy, 2014, 10, 37-43.	16.0	119
22	Enhanced microwave performance of cobalt nanoflakes with strong shape anisotropy. Applied Physics Letters, 2010, 96, .	3.3	118
23	Characteristics of output voltage and current of integrated nanogenerators. Applied Physics Letters, 2009, 94, .	3.3	114
24	Magnetic and microwave properties of cobalt nanoplatelets. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2007, 138, 199-204.	3.5	109
25	Electrospinning lead-free $0.5\text{Ba}(\text{Zr}_{0.2}\text{Ti}_{0.8})\text{O}_3 \approx 0.5(\text{Ba}_{0.7}\text{Ca}_{0.3})\text{TiO}_3$ nanowires and their application in energy harvesting. Journal of Materials Chemistry A, 2013, 1, 7332.	10.3	102
26	Biocompatible Nanogenerators through High Piezoelectric Coefficient $0.5\text{Ba}(\text{Zr}_{0.2}\text{Ti}_{0.8})\text{O}_3 \approx 0.5(\text{Ba}_{0.7}\text{Ca}_{0.3})\text{TiO}_3$ Nanowires for In Vivo Applications. Advanced Materials, 2014, 26, 7432-7437.	21.0	93
27	A High-Reliability Kevlar Fiber-ZnO Nanowires Hybrid Nanogenerator and its Application on Self-Powered UV Detection. Advanced Functional Materials, 2015, 25, 5794-5798.	14.9	85
28	Single crystalline lead zirconate titanate (PZT) nano/micro-wire based self-powered UV sensor. Nano Energy, 2012, 1, 789-795.	16.0	82
29	Synthesis of High Crystallinity ZnO Nanowire Array on Polymer Substrate and Flexible Fiber-Based Sensor. ACS Applied Materials & Interfaces, 2011, 3, 4197-4200.	8.0	79
30	Magnetic Force Driven Nanogenerators as a Noncontact Energy Harvester and Sensor. Nano Letters, 2012, 12, 3701-3705.	9.1	79
31	Ultrasensitive 2D ZnO Piezotronic Transistor Array for High Resolution Tactile Imaging. Advanced Materials, 2017, 29, 1606346.	21.0	79
32	Dual C(sp ³)-H Bond Functionalization of N-Heterocycles through Sequential Visible-Light Photocatalyzed Dehydrogenation/[2+2] Cycloaddition Reactions. Angewandte Chemie - International Edition, 2018, 57, 5110-5114.	13.8	79
33	Type-II hetero-junction dual shell hollow spheres loaded with spatially separated cocatalyst for enhancing visible light hydrogen evolution. Nano Energy, 2017, 38, 518-525.	16.0	78
34	Two dimensional woven nanogenerator. Nano Energy, 2013, 2, 749-753.	16.0	76
35	Development and outlook of high output piezoelectric nanogenerators. Nano Energy, 2021, 86, 106080.	16.0	76
36	Hierarchical hybrid nanostructures of Sn_3O_4 on N doped TiO_2 nanotubes with enhanced photocatalytic performance. Journal of Materials Chemistry A, 2015, 3, 19129-19136.	10.3	70

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37	A three-dimensional integrated nanogenerator for effectively harvesting sound energy from the environment. <i>Nanoscale</i> , 2016, 8, 4938-4944.	5.6	70
38	Flexible Self-Powered ZnO Film UV Sensor with a High Response. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 26127-26133.	8.0	69
39	High performance temperature difference triboelectric nanogenerator. <i>Nature Communications</i> , 2021, 12, 4782.	12.8	69
40	A Transparent Antipeep Piezoelectric Nanogenerator to Harvest Tapping Energy on Screen. <i>Small</i> , 2016, 12, 1315-1321.	10.0	64
41	Ultrathin Piezotronic Transistors with 2 nm Channel Lengths. <i>ACS Nano</i> , 2018, 12, 4903-4908.	14.6	63
42	2D piezotronics in atomically thin zinc oxide sheets: Interfacing gating and channel width gating. <i>Nano Energy</i> , 2019, 60, 724-733.	16.0	60
43	Highly sensitive strain sensors based on piezotronic tunneling junction. <i>Nature Communications</i> , 2022, 13, 778.	12.8	58
44	Hierarchical CoNi ₂ S ₄ nanosheet/nanotube array structure on carbon fiber cloth for high-performance hybrid supercapacitors. <i>Electrochimica Acta</i> , 2019, 305, 81-89.	5.2	54
45	The microstructure and magnetic properties of Ni nanoplatelets. <i>Nanotechnology</i> , 2004, 15, 982-986.	2.6	52
46	Adjustment of oxygen vacancy states in ZnO and its application in ppb-level NO ₂ gas sensor. <i>Science Bulletin</i> , 2020, 65, 1650-1658.	9.0	52
47	High-Performance Triboelectric Nanogenerator with a Rationally Designed Friction Layer Structure. <i>ACS Applied Energy Materials</i> , 2018, 1, 2891-2897.	5.1	51
48	Mechanism of Sensitivity Enhancement of a ZnO Nanofilm Gas Sensor by UV Light Illumination. <i>ACS Sensors</i> , 2019, 4, 1577-1585.	7.8	51
49	Packaged triboelectric nanogenerator with high durability for severe environments. <i>Nanoscale</i> , 2015, 7, 18049-18053.	5.6	45
50	Ultrasensitive Vertical Piezotronic Transistor Based on ZnO Twin Nanoplatelet. <i>ACS Nano</i> , 2017, 11, 4859-4865.	14.6	45
51	Increasing UV Photon Response of ZnO Sensor with Nanowires Array. <i>Science of Advanced Materials</i> , 2010, 2, 402-406.	0.7	45
52	Wireless, power-free and implantable nanosystem for resistance-based biodetection. <i>Nano Energy</i> , 2015, 15, 598-606.	16.0	44
53	Design and application of piezoelectric biomaterials. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 194002.	2.8	44
54	Data-driven and probabilistic learning of the process-structure-property relationship in solution-grown tellurene for optimized nanomanufacturing of high-performance nanoelectronics. <i>Nano Energy</i> , 2019, 57, 480-491.	16.0	44

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55	Enhancing the Performance of Textile Triboelectric Nanogenerators with Oblique Microrod Arrays for Wearable Energy Harvesting. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 26824-26829.	8.0	43
56	Flexible Nanogenerator Based on Single BaTiO ₃ Nanowire. <i>Science of Advanced Materials</i> , 2013, 5, 1781-1787.	0.7	43
57	Mechanically Asymmetrical Triboelectric Nanogenerator for Self-Powered Monitoring of In Vivo Microscale Weak Movement. <i>Advanced Energy Materials</i> , 2020, 10, 2000827.	19.5	42
58	A new kind of transparent and self-cleaning film for solar cells. <i>Nanoscale</i> , 2016, 8, 17747-17751.	5.6	41
59	Solution Processed Nb ₂ O ₅ Electrodes for High Efficient Ultraviolet Light Stable Planar Perovskite Solar Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 7421-7429.	6.7	41
60	Enhancing the filtration efficiency and wearing time of disposable surgical masks using TENG technology. <i>Nano Energy</i> , 2021, 79, 105434.	16.0	38
61	Performance enhanced triboelectric nanogenerator by taking advantage of water in humid environments. <i>Nano Energy</i> , 2021, 88, 106303.	16.0	36
62	Fabric-Based Triboelectric Nanogenerators. <i>Research</i> , 2019, 2019, 1091632.	5.7	36
63	Double-Channel Piezotronic Transistors for Highly Sensitive Pressure Sensing. <i>ACS Nano</i> , 2018, 12, 1732-1738.	14.6	33
64	Sandwich as a triboelectric nanogenerator. <i>Nano Energy</i> , 2021, 79, 105411.	16.0	33
65	Synthesis of large monolayer single crystal MoS ₂ nanosheets with uniform size through a double-tube technology. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	31
66	A Light Sensitive Nanogenerator for Self-Powered UV Detection with Two Measuring Ranges. <i>Advanced Optical Materials</i> , 2017, 5, 1600623.	7.3	27
67	A self-powered sensor with super-hydrophobic nanostructure surfaces for synchronous detection and electricity generation. <i>Nano Energy</i> , 2017, 33, 288-292.	16.0	26
68	Ultrasensitive Fiber-Based ZnO Nanowire Network Ultraviolet Photodetector Enabled by the Synergism between Interface and Surface Gating Effects. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 1054-1060.	8.0	25
69	Clarifying the high on/off ratio mechanism of nanowire UV photodetector by characterizing surface barrier height. <i>Nanoscale</i> , 2018, 10, 2242-2248.	5.6	24
70	Enhancing the performance of room temperature ZnO microwire gas sensor through a combined technology of surface etching and UV illumination. <i>Materials Letters</i> , 2018, 212, 296-298.	2.6	24
71	Green Anti-solvent Processed Efficient Flexible Perovskite Solar Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 4343-4350.	6.7	24
72	Controllable fabrication of ultrafine oblique organic nanowire arrays and their application in energy harvesting. <i>Nanoscale</i> , 2015, 7, 1285-1289.	5.6	23

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73	Increasing the output charge quantity of triboelectric nanogenerators via frequency multiplication with a multigap-structured friction layer. <i>Energy and Environmental Science</i> , 2020, 13, 2069-2076.	30.8	23
74	Microstructure and Magnetic Properties of La _{1-x} Sr _x FeO ₃ Nanoparticles. <i>Physica Status Solidi A</i> , 2002, 191, 255-259.	1.7	22
75	Structure and magnetic properties of cobalt nanoplatelets. <i>Materials Letters</i> , 2004, 58, 2506-2509.	2.6	22
76	Directional Transport of Polymer Sheet and a Microsphere by a Rationally Aligned Nanowire Array. <i>Advanced Materials</i> , 2012, 24, 817-821.	21.0	21
77	Dual C(sp ³)-H Bond Functionalization of N-Heterocycles through Sequential Visible-Light Photocatalyzed Dehydrogenation/[2+2] Cycloaddition Reactions. <i>Angewandte Chemie</i> , 2018, 130, 5204-5208.	2.0	21
78	Coaxial double helix structured fiber-based triboelectric nanogenerator for effectively harvesting mechanical energy. <i>Nanoscale Advances</i> , 2020, 2, 4482-4490.	4.6	21
79	Ultralow friction regime from the in situ production of a richer fullerene-like nanostructured carbon in sliding contact. <i>RSC Advances</i> , 2015, 5, 106476-106484.	3.6	20
80	Core-Shell Fiber-Based 2D Woven Triboelectric Nanogenerator for Effective Motion Energy Harvesting. <i>Nanoscale Research Letters</i> , 2019, 14, 311.	5.7	19
81	A Fully Self-Healing Piezoelectric Nanogenerator for Self-Powered Pressure Sensing Electronic Skin. <i>Research</i> , 2021, 2021, 9793458.	5.7	19
82	Gridding Triboelectric Nanogenerator for Raindrop Energy Harvesting. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 59975-59982.	8.0	18
83	Theoretical study of enhancing the piezoelectric nanogenerator's output power by optimizing the external force's shape. <i>APL Materials</i> , 2017, 5, .	5.1	17
84	The architecture assembled from Ni nanocones and its microwave-absorbing properties. <i>Scripta Materialia</i> , 2010, 63, 1145-1148.	5.2	16
85	Transition-Metal-Free Selective C-H Benzoylation of Tertiary Arylamines by a Dearomatization-Aromatization Sequence. <i>Chemistry - A European Journal</i> , 2018, 24, 13778-13782.	3.3	15
86	Improving Cycling Performance of Si-Based Lithium Ion Batteries Anode with Se-Loaded Carbon Coating. <i>ACS Applied Energy Materials</i> , 2019, 2, 5124-5132.	5.1	15
87	Enhancing the Performance of a Self-Standing Si/PCNF Anode by Optimizing the Porous Structure. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 27219-27225.	8.0	15
88	Flexible piezoelectric nanogenerators based on PVDF-TrFE nanofibers. <i>EPJ Applied Physics</i> , 2017, 80, 30901.	0.7	14
89	Decoupling the charge collecting and screening effects in piezotronics-regulated photoelectrochemical systems by using graphene as the charge collector. <i>Nano Energy</i> , 2018, 48, 377-382.	16.0	14
90	Piezotronic Tunneling Junction Gated by Mechanical Stimuli. <i>Advanced Materials</i> , 2019, 31, e1905436.	21.0	14

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91	Microstructure and Magnetic Properties of Fe _{1-x} Ni _x Alloy Nanoplatelets. Journal of Nanoscience and Nanotechnology, 2005, 5, 1699-1706.	0.9	13
92	Structures and magnetic properties of Nd _{1-x} CaxFeO ₃ nanoparticles. Journal of Applied Physics, 2002, 92, 7504-7509.	2.5	12
93	Nanowire templated CVD synthesis and morphological control of MoS ₂ nanotubes. Journal of Materials Chemistry C, 2020, 8, 4133-4138.	5.5	12
94	Anisotropic wetting properties of oblique nanowires array and their applications on water transportation and fog collection. Surfaces and Interfaces, 2021, 22, 100784.	3.0	11
95	Self-Cleaning and Self-Powered UV Sensors for Highly Reliable Outdoor UV Detection. ACS Applied Electronic Materials, 2020, 2, 1628-1634.	4.3	10
96	Fiber-Based Electret Nanogenerator with a Semisupported Structure for Wearable Electronics. ACS Applied Materials & Interfaces, 2021, 13, 46840-46847.	8.0	10
97	A polymer based self-powered ethanol gas sensor to eliminate the interference of ultraviolet light. Sensors and Actuators A: Physical, 2021, 332, 113173.	4.1	10
98	Multichannel driving triboelectric nanogenerator for enhancing the output charge density. Nano Energy, 2022, 98, 107272.	16.0	10
99	Microwave Permittivity, Permeability, and Absorption of Ni Nanoplatelet Composites. Journal of Nanoscience and Nanotechnology, 2008, 8, 3967-3972.	0.9	9
100	Vibration driven vehicle inspired from grass spike. Scientific Reports, 2013, 3, 1851.	3.3	9
101	Piezoelectric nanofiber/polymer composite membrane for noise harvesting and active acoustic wave detection. Nanoscale Advances, 2019, 1, 4909-4914.	4.6	9
102	Atomic-thick 2D MoS ₂ /insulator interjection structures for enhancing nanogenerator output. Journal of Materials Chemistry C, 2018, 6, 899-906.	5.5	8
103	Surface engineering and on-site charge neutralization for the regulation of contact electrification. Nano Energy, 2022, 91, 106687.	16.0	6
104	Electrospinning multi-layered nano-solenoid and reticular micro-tubular structure on a microfiber. Materials Letters, 2013, 98, 153-156.	2.6	5
105	Theoretical Study of the BaTiO ₃ Powder's Volume Ratio's Influence on the Output of Composite Piezoelectric Nanogenerator. Nanomaterials, 2017, 7, 143.	4.1	5
106	High rate capacity anode of Si-C composite nanofiber wrapped with Cu foam for lithium-ion batteries. Materials Letters, 2020, 268, 127572.	2.6	5
107	Statistical Piezotronic Effect in Nanocrystal Bulk by Anisotropic Geometry Control. Advanced Functional Materials, 2021, 31, 2010339.	14.9	4
108	Surface Engineering Method to Fabricate a Bendable Self-Cleaning Surface with High Robustness. Science of Advanced Materials, 2013, 5, 933-938.	0.7	4

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109	Efficient post-treatment of CsPbBr ₃ film with enhanced photovoltaic performance. Journal of Alloys and Compounds, 2021, 872, 159601.	5.5	3
110	Controllable Fabrication of Patterned Oblique Nanowire Array and Its Application as a Reflection Grating. Science of Advanced Materials, 2013, 5, 1179-1183.	0.7	3
111	Theoretical Study of the Stress Transfer Effect on the Output of a Composite Piezoelectric Nanogenerator. , 2021, 3, 1793-1798.		3
112	Weak ferromagnetism in Re _{0.67} Ca _{0.33} FeO ₃ (Re=La, Sm, Gd) nanoparticles. Journal of Magnetism and Magnetic Materials, 2003, 263, 154-160.	2.3	1
113	One-dimensional coaxial nanowire solar cell. International Journal of Nanoparticles, 2011, 4, 184.	0.3	0
114	Nanowires for Piezoelectric Nanogenerators. RSC Smart Materials, 2014, , 200-276.	0.1	0
115	Flexible piezoelectric nanogenerators for in vivo applications. , 2015, , .		0