Youfan Hu

List of Publications by Year
in descending order

80	10,787	57631 44	66788 78
papers	citations	h-index	g-index

84	84	84	9877
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A bioinspired three-dimensional integrated e-skin for multiple mechanical stimuli recognition. Nano Energy, 2022, 92, 106777.	8.2	25
2	High-Performance Carbon Nanotube-Based Transient Complementary Electronics. ACS Applied Materials & Interfaces, 2022, 14, 12515-12522.	4.0	6
3	Carbon Nanotube-Based Flexible Ferroelectric Synaptic Transistors for Neuromorphic Computing. ACS Applied Materials & Interfaces, 2022, 14, 30124-30132.	4.0	10
4	Gold nanostructure-programmed flexible electrochemical biosensor for detection of glucose and lactate in sweat. Journal of Electroanalytical Chemistry, 2021, 882, 115029.	1.9	38
5	Carbon Nanotube Field-Effect Transistor-Based Chemical and Biological Sensors. Sensors, 2021, 21, 995.	2.1	47
6	A Flexible Two-Sensor System for Temperature and Bending Angle Monitoring. Materials, 2021, 14, 2962.	1.3	7
7	A Tubular Flexible Triboelectric Nanogenerator with a Superhydrophobic Surface for Human Motion Detecting. Sensors, 2021, 21, 3634.	2.1	11
8	A Flexible Integrated Bending Strain and Pressure Sensor System for Motion Monitoring. Sensors, 2021, 21, 3969.	2.1	16
9	Smart textile triboelectric nanogenerators: Current status and perspectives. MRS Bulletin, 2021, 46, 512-521.	1.7	111
10	Sensation and Perception of a Bioinspired Flexible Smart Sensor System. ACS Nano, 2021, 15, 9238-9243.	7.3	17
11	Ultrasoft, mass-permeable, and low-impedance hydrogels for tissue-like skin-device interfaces. Science Bulletin, 2021, 67, 114-114.	4.3	0
12	Flexible Integrated Circuits Based on Carbon Nanotubes. Accounts of Materials Research, 2020, 1, 88-99.	5.9	18
13	Carbon nanotube dual-material gate devices for flexible configurable multifunctional electronics. Carbon, 2020, 161, 656-664.	5.4	15
14	Recent Advances in Flexible and Stretchable Sensing Systems: From the Perspective of System Integration. ACS Nano, 2020, 14, 6449-6469.	7.3	82
15	Machine-washable and breathable pressure sensors based on triboelectric nanogenerators enabled by textile technologies. Nano Energy, 2020, 70, 104528.	8.2	151
16	Waferâ€Scale Highâ€Yield Manufacturing of Degradable Electronics for Environmental Monitoring. Advanced Functional Materials, 2019, 29, 1905518.	7.8	19
17	Ultrathin, flexible and transparent graphene-based triboelectric nanogenerators for attachable curvature monitoring. Journal Physics D: Applied Physics, 2019, 52, 314002.	1.3	12
18	Tunable, Ultrasensitive, and Flexible Pressure Sensors Based on Wrinkled Microstructures for Electronic Skins. ACS Applied Materials & Interfaces, 2019, 11, 21218-21226.	4.0	151

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19	Expandable microsphere-based triboelectric nanogenerators as ultrasensitive pressure sensors for respiratory and pulse monitoring. Nano Energy, 2019, 59, 295-301.	8.2	148
20	Degradable Electronics: Waferâ€Scale Highâ€Yield Manufacturing of Degradable Electronics for Environmental Monitoring (Adv. Funct. Mater. 50/2019). Advanced Functional Materials, 2019, 29, 1970339.	7.8	3
21	Progress in textile-based triboelectric nanogenerators for smart fabrics. Nano Energy, 2019, 56, 16-24.	8.2	122
22	Low-power carbon nanotube-based integrated circuits that can be transferred to biological surfaces. Nature Electronics, 2018, 1, 237-245.	13.1	86
23	High-Performance Carbon Nanotube Complementary Electronics and Integrated Sensor Systems on Ultrathin Plastic Foil. ACS Nano, 2018, 12, 2773-2779.	7.3	90
24	Configurable multifunctional integrated circuits based on carbon nanotube dual-material gate devices. Nanoscale, 2018, 10, 21857-21864.	2.8	9
25	Piezo-phototronic effect on optoelectronic nanodevices. MRS Bulletin, 2018, 43, 952-958.	1.7	38
26	Waferâ€Scale Fabrication of Ultrathin Flexible Electronic Systems via Capillaryâ€Assisted Electrochemical Delamination. Advanced Materials, 2018, 30, e1805408.	11.1	38
27	Kirigamiâ€Inspired Deformable 3D Structures Conformable to Curved Biological Surface. Advanced Science, 2018, 5, 1801070.	5.6	51
28	Carbon nanotube-based flexible electronics. Journal of Materials Chemistry C, 2018, 6, 7714-7727.	2.7	77
29	Textile triboelectric nanogenerator for wearable electronics. Advanced Materials Letters, 2018, 9, 199-204.	0.3	3
30	Recent progress in piezo-phototronics with extended materials, application areas and understanding. Semiconductor Science and Technology, 2017, 32, 053002.	1.0	22
31	Ultrasensitive triboelectric nanogenerator for weak ambient energy with rational unipolar stacking structure and low-loss power management. Nano Energy, 2017, 41, 351-358.	8.2	19
32	Progress in Piezoâ€Phototronicâ€Effectâ€Enhanced Lightâ€Emitting Diodes and Pressure Imaging. Advanced Materials, 2016, 28, 1535-1552.	11.1	110
33	Wearable Technology: Machine-Washable Textile Triboelectric Nanogenerators for Effective Human Respiratory Monitoring through Loom Weaving of Metallic Yarns (Adv. Mater. 46/2016). Advanced Materials, 2016, 28, 10266-10266.	11.1	6
34	Harvesting the hidden energy for self-powered systems. , 2016, , .		0
35	Machineâ€Washable Textile Triboelectric Nanogenerators for Effective Human Respiratory Monitoring through Loom Weaving of Metallic Yarns. Advanced Materials, 2016, 28, 10267-10274.	11.1	328
36	Performance Boosting of Flexible ZnO UV Sensors with Rational Designed Absorbing Antireflection Layer and Humectant Encapsulation. ACS Applied Materials & Interfaces, 2016, 8, 381-389.	4.0	23

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37	Temperature Dependence of the Piezophototronic Effect in CdS Nanowires. Advanced Functional Materials, 2015, 25, 5277-5284.	7.8	50
38	Recent progress in piezoelectric nanogenerators as a sustainable power source in self-powered systems and active sensors. Nano Energy, 2015, 14, 3-14.	8.2	330
39	Development and progress in piezotronics. Nano Energy, 2015, 14, 276-295.	8.2	84
40	Nanowires for Piezoelectric Nanogenerators. RSC Smart Materials, 2014, , 200-276.	0.1	0
41	Theoretical Investigation and Structural Optimization of Singleâ€Electrode Triboelectric Nanogenerators. Advanced Functional Materials, 2014, 24, 3332-3340.	7.8	513
42	A theoretical study of grating structured triboelectric nanogenerators. Energy and Environmental Science, 2014, 7, 2339-2349.	15.6	194
43	Hybridizing Triboelectrification and Electromagnetic Induction Effects for High-Efficient Mechanical Energy Harvesting. ACS Nano, 2014, 8, 7442-7450.	7.3	112
44	Enhanced Performance of Flexible ZnO Nanowire Based Roomâ€Temperature Oxygen Sensors by Piezotronic Effect. Advanced Materials, 2013, 25, 3701-3706.	11.1	146
45	Temperature Dependence of the Piezotronic Effect in ZnO Nanowires. Nano Letters, 2013, 13, 5026-5032.	4.5	76
46	Theoretical study of contact-mode triboelectric nanogenerators as an effective power source. Energy and Environmental Science, 2013, 6, 3576.	15.6	1,380
47	An elastic-spring-substrated nanogenerator as an active sensor for self-powered balance. Energy and Environmental Science, 2013, 6, 1164.	15.6	53
48	Transparent flexible nanogenerator as self-powered sensor for transportation monitoring. Nano Energy, 2013, 2, 75-81.	8.2	171
49	Segmentally Structured Disk Triboelectric Nanogenerator for Harvesting Rotational Mechanical Energy. Nano Letters, 2013, 13, 2916-2923.	4.5	437
50	Enhanced performance of GaN nanobelt-based photodetectors by means of piezotronic effects. Nano Research, 2013, 6, 758-766.	5.8	42
51	Triboelectric Nanogenerator Built on Suspended 3D Spiral Structure as Vibration and Positioning Sensor and Wave Energy Harvester. ACS Nano, 2013, 7, 10424-10432.	7.3	204
52	Theory of Slidingâ€Mode Triboelectric Nanogenerators. Advanced Materials, 2013, 25, 6184-6193.	11.1	581
53	Gallium Nitride Nanowire Based Nanogenerators and Light-Emitting Diodes. ACS Nano, 2012, 6, 5687-5692.	7.3	150
54	Piezo-Phototronic Effect on Electroluminescence Properties of <i>p</i>-Type GaN Thin Films. Nano Letters, 2012, 12, 3851-3856.	4.5	58

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55	Ultrahigh Sensitive Piezotronic Strain Sensors Based on a ZnSnO₃ Nanowire/Microwire. ACS Nano, 2012, 6, 4369-4374.	7.3	176
56	Pyroelectric Nanogenerators for Harvesting Thermoelectric Energy. Nano Letters, 2012, 12, 2833-2838.	4.5	639
57	Replacing a Battery by a Nanogenerator with 20 V Output. Advanced Materials, 2012, 24, 110-114.	11.1	256
58	High output nanogenerator based on assembly of GaN nanowires. Nanotechnology, 2011, 22, 475401.	1.3	65
59	Self-Powered System with Wireless Data Transmission. Nano Letters, 2011, 11, 2572-2577.	4.5	385
60	A Nanogenerator for Energy Harvesting from a Rotating Tire and its Application as a Selfâ€Powered Pressure/Speed Sensor. Advanced Materials, 2011, 23, 4068-4071.	11.1	235
61	Piezo-phototronic effect and its applications in flexible optoelectronic and energy technologies. , 2011, , .		2
62	Effects of piezopotential spatial distribution on local contact dictated transport property of ZnO micro/nanowires. Applied Physics Letters, 2010, 97, 033509.	1.5	23
63	Supersensitive, Fastâ€Response Nanowire Sensors by Using Schottky Contacts. Advanced Materials, 2010, 22, 3327-3332.	11.1	311
64	Ordered Nanowire Array Blue/Nearâ€UV Light Emitting Diodes. Advanced Materials, 2010, 22, 4749-4753.	11.1	206
65	Lateral nanowire/nanobelt based nanogenerators, piezotronics and piezo-phototronics. Materials Science and Engineering Reports, 2010, 70, 320-329.	14.8	223
66	Optimizing the Power Output of a ZnO Photocell by Piezopotential. ACS Nano, 2010, 4, 4220-4224.	7.3	121
67	High-Output Nanogenerator by Rational Unipolar Assembly of Conical Nanowires and Its Application for Driving a Small Liquid Crystal Display. Nano Letters, 2010, 10, 5025-5031.	4.5	244
68	Designing the Electric Transport Characteristics of ZnO Micro/Nanowire Devices by Coupling Piezoelectric and Photoexcitation Effects. ACS Nano, 2010, 4, 1234-1240.	7.3	205
69	Observation of a 2D Electron Gas and the Tuning of the Electrical Conductance of ZnO Nanowires by Controllable Surface Bandâ€Bending. Advanced Functional Materials, 2009, 19, 2380-2387.	7.8	43
70	Converse Piezoelectric Effect Induced Transverse Deflection of a Free-Standing ZnO Microbelt. Nano Letters, 2009, 9, 2661-2665.	4.5	22
71	Gigantic enhancement in response and reset time of ZnO UV nanosensor by utilizing Schottky contact and surface functionalization. Applied Physics Letters, 2009, 94, 191103.	1.5	515
72	Visible Light Response of Unintentionally Doped ZnO Nanowire Field Effect Transistors. Journal of Physical Chemistry C, 2009, 113, 16796-16801.	1.5	36

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73	Individual Bi₂S₃ Nanowire-Based Room-Temperature H₂ Sensor. Journal of Physical Chemistry C, 2008, 112, 8721-8724.	1.5	108
74	Quantitative Study on the Effect of Surface Treatments on the Electric Characteristics of ZnO Nanowires. Journal of Physical Chemistry C, 2008, 112, 14225-14228.	1.5	10
75	Quantitative Fitting of Nonlinear Currentâ€“Voltage Curves and Parameter Retrieval of Semiconducting Nanowire, Nanotube and Nanoribbon Devices. Journal of Nanoscience and Nanotechnology, 2008, 8, 252-258.	0.9	45
76	Fabrication of high performance top-gate complementary inverter using a single carbon nanotube and via a simple process. Applied Physics Letters, 2007, 90, 223116.	1.5	21
77	Doping-Free Fabrication of Carbon Nanotube Based Ballistic CMOS Devices and Circuits. Nano Letters, 2007, 7, 3603-3607.	4.5	319
78	Synthesis and Characterizations of Amorphous Carbon Nanotubes by Pyrolysis of Ferrocene Confined within AAM Templates. Journal of Physical Chemistry B, 2006, 110, 8263-8267.	1.2	32
79	Electrical characteristics of amorphous carbon nanotube and effects of contacts. Applied Physics Letters, 2006, 88, 063113.	1.5	14
80	Synthesis and characterization of large scale potassium titanate nanowires with good Li-intercalation performance. Chemical Physics Letters, 2005, 406, 95-100.	1.2	38