

# Hang Zhou

## List of Publications by Year in descending order

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94  
papers

2,115  
citations

279701

23  
h-index

254106

43  
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94  
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94  
docs citations

94  
times ranked

3196  
citing authors

#	ARTICLE	IF	CITATIONS
1	An aqueous zinc-ion battery working at ~50°C enabled by low-concentration perchlorate-based chaotropic salt electrolyte. <i>EcoMat</i> , 2022, 4, .	6.8	40
2	How Materials and Device Factors Determine the Performance: A Unified Solution for Transistors with Nontrivial Gates and Transistor-Diode Hybrid Integration. <i>Advanced Science</i> , 2022, 9, e2104896.	5.6	12
3	The Limitation of Threshold-Voltage Compensation Range for Internal Compensation Circuit in the AM-MiniLED Pixel Structure. , 2022, , .		0
4	Dual Organic Spacer Cation Quasi-2D Sn-Pb Perovskite for Solar Cells and Near-Infrared Photodetectors Application. <i>Advanced Photonics Research</i> , 2022, 3, .	1.7	5
5	Thorough Elimination of Persistent Photoconduction in Amorphous InZnO Thin-Film Transistor via Dual-Gate Pulses. <i>IEEE Electron Device Letters</i> , 2022, 43, 1247-1250.	2.2	4
6	A New Pixel Circuit for Active Matrix Mini&Micro Light Emitting Diodes. , 2022, , .		1
7	Coexistence of Contact Electrification and Dynamic p-n Junction Modulation Effects in Triboelectrification. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 30410-30419.	4.0	8
8	Pixellated Perovskite Photodiode on IGZO Thin Film Transistor Backplane for Low Dose Indirect X-Ray Detection. <i>IEEE Journal of the Electron Devices Society</i> , 2021, 9, 96-101.	1.2	11
9	A comparison study of MnO <sub>2</sub> and Mn <sub>2</sub> O <sub>3</sub> as zinc-ion battery cathodes: an experimental and computational investigation. <i>RSC Advances</i> , 2021, 11, 14408-14414.	1.7	12
10	Highly conductive locust bean gum bio-electrolyte for superior long-life quasi-solid-state zinc-ion batteries. <i>RSC Advances</i> , 2021, 11, 24862-24871.	1.7	12
11	Visible-light-stimulated synaptic InGaZnO phototransistors enabled by wavelength-tunable perovskite quantum dots. <i>Nanoscale Advances</i> , 2021, 3, 5046-5052.	2.2	13
12	Fine-tuning of side-chain orientations on nonfullerene acceptors enables organic solar cells with 17.7% efficiency. <i>Energy and Environmental Science</i> , 2021, 14, 3469-3479.	15.6	158
13	Flexible indirect x-ray detector enabled by organic photodiode and CsPbBr <sub>3</sub> perovskite quantum dot scintillator. <i>Flexible and Printed Electronics</i> , 2021, 6, 015008.	1.5	7
14	Effect of Monoethanolamine Stabilizer on the Solution-Processed InGaZnO Thin-film Transistors. , 2021, , .		2
15	Large-area patterning of full-color quantum dot arrays beyond 1000 pixels per inch by selective electrophoretic deposition. <i>Nature Communications</i> , 2021, 12, 4603.	5.8	64
16	Investigation of the S-Shaped Current-Voltage Curve in High Open-Circuit Voltage Ruddlesden-Popper Perovskite Solar Cells. <i>Frontiers in Energy Research</i> , 2021, 9, .	1.2	3
17	A System-Level Approach towards a Hybrid Energy Harvesting Glove. <i>Sensors</i> , 2021, 21, 5349.	2.1	1
18	A Novel Modularization Design Method of PM Biased SCFCL Considering Leakage Flux Effect and Permeance Matrix Modeling. <i>IEEE Transactions on Power Delivery</i> , 2021, 36, 2881-2892.	2.9	4

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19	Flexible and anti-freezing zinc-ion batteries using a guar-gum/sodium-alginate/ethylene-glycol hydrogel electrolyte. Energy Storage Materials, 2021, 41, 599-605.	9.5	124
20	X-ray Sensitive hybrid organic photodetectors with embedded CsPbBr <sub>3</sub> perovskite quantum dots. Organic Electronics, 2021, 98, 106306.	1.4	12
21	Hybrid-Material Based Saturated Core FCL in HVDC System: Modeling, Analyzing and Performance Testing. IEEE Transactions on Industrial Electronics, 2021, 68, 11858-11869.	5.2	10
22	A high-performance free-standing Zn anode for flexible zinc-ion batteries. Nanoscale, 2021, 13, 10100-10107.	2.8	30
23	Impact of Diverse Ambient Illuminations on a Flexible Photosensitive Energy Scavenger. , 2021, , .		0
24	Inkjet printed uniform quantum dots as color conversion layers for full-color OLED displays. Nanoscale, 2020, 12, 2103-2110.	2.8	114
25	One-step synthesis of MnO <sub>x</sub> /PPy nanocomposite as a high-performance cathode for a rechargeable zinc-ion battery and insight into its energy storage mechanism. Nanoscale, 2020, 12, 4150-4158.	2.8	47
26	Improved current efficiency of quasi-2D multi-cation perovskite light-emitting diodes: the effect of Cs and K. Nanoscale, 2020, 12, 1571-1579.	2.8	19
27	A Novel Six-Leg Three-Phase Fault Current Limiter. IEEE Transactions on Power Delivery, 2020, 35, 1707-1715.	2.9	12
28	Spinâ€œPatterning of Snâ€œPb Perovskite Photodiodes on IGZO Transistor Arrays for Fast Activeâ€œMatrix Nearâ€œInfrared Imaging. Advanced Materials Technologies, 2020, 5, 1900752.	3.0	21
29	Facile Four-Mask Processes for Organic Thin-Film Transistor Integration Structure With Metal Interconnect. IEEE Electron Device Letters, 2020, 41, 70-72.	2.2	11
30	Deciphering the Role of Chalcogen-Containing Heterocycles in Nonfullerene Acceptors for Organic Solar Cells. ACS Energy Letters, 2020, 5, 3415-3425.	8.8	73
31	Ultrasonic Spray Deposition of â€œIGZO Thin Film Transistor on Substrate with Hydrophilic Patterns. Digest of Technical Papers SID International Symposium, 2020, 51, 187-189.	0.1	0
32	An Active Matrix Miniâ€œLEDs Backlight based on â€œSi. Digest of Technical Papers SID International Symposium, 2020, 51, 62-64.	0.1	5
33	Controlling Performance of Organicâ€œInorganic Hybrid Perovskite Triboelectric Nanogenerators via Chemical Composition Modulation and Electric Fieldâ€œInduced Ion Migration. Advanced Energy Materials, 2020, 10, 2002470.	10.2	19
34	Photovoltage-Coupled Dual-Gate InGaZnO Thin-Film Transistors Operated at the Subthreshold Region for Low-Power Photodetection. ACS Applied Electronic Materials, 2020, 2, 1745-1751.	2.0	4
35	Polyacrylic acid assisted synthesis of free-standing MnO <sub>2</sub> /CNTs cathode for Zinc-ion batteries. Nanotechnology, 2020, 31, 375401.	1.3	13
36	Optimization of PMMA:PCBM Interlayer for MAPbI <sub>3</sub> /IGZO Phototransistor. , 2020, , .		1

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37	A New Compensation Pixel Circuit Based on A-Si TFTs. , 2020, , .		3
38	Inductive Fault Current Limiters in VSC-HVDC Systems: A Review. IEEE Access, 2020, 8, 38185-38197.	2.6	17
39	Low-Dimensional Contact Layers for Enhanced Perovskite Photodiodes. Advanced Functional Materials, 2020, 30, 2001692.	7.8	30
40	Carbon nanohorns/nanotubes: An effective binary conductive additive in the cathode of high energy-density zinc-ion rechargeable batteries. Carbon, 2020, 167, 431-438.	5.4	42
41	Saturated-core fault current limiters for AC power systems: Towards reliable, economical and better performance application. High Voltage, 2020, 5, 416-424.	2.7	15
42	A Novel Multi-Function Saturated-Core Fault Current Limiter. IEEE Transactions on Magnetics, 2019, 55, 1-5.	1.2	9
43	Enhanced UV-visible detection of InGaZnO phototransistors via CsPbBr <sub>3</sub> quantum dots. Semiconductor Science and Technology, 2019, 34, 125013.	1.0	25
44	Narrow Bandgap Pb-Sn Perovskites/InGaZnO Hybrid Phototransistors for Near-Infrared Detection. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900417.	0.8	13
45	Flexible and stable quasi-solid-state zinc ion battery with conductive guar gum electrolyte. Materials Today Energy, 2019, 14, 100349.	2.5	77
46	Development of a compact high-voltage pulser for hypervelocity microparticles injector. Review of Scientific Instruments, 2019, 90, 083305.	0.6	1
47	Reduced graphene oxide-induced crystallization of CuPc interfacial layer for high performance of perovskite photodetectors. RSC Advances, 2019, 9, 3800-3808.	1.7	14
48	Flexible quasi-solid-state zinc ion batteries enabled by highly conductive carrageenan bio-polymer electrolyte. RSC Advances, 2019, 9, 16313-16319.	1.7	88
49	75th Inkjet-Printed Quantum Dot Display with Blue OLEDs for Next Generation Display. Digest of Technical Papers SID International Symposium, 2019, 50, 1075-1078.	0.1	10
50	Enhanced Uniformity and Stability of Pb-Sn Perovskite Solar Cells via Me <sub>4</sub> NBr Passivation. Advanced Materials Interfaces, 2019, 6, 1900413.	1.9	33
51	Nanostructured High-Performance Thin-Film Transistors and Phototransistors Fabricated by a High-Yield and Versatile Near-Field Nanolithography Strategy. ACS Nano, 2019, 13, 6618-6630.	7.3	15
52	Enhanced UV-C Detection of Perovskite Photodetector Arrays via Inorganic CsPbBr <sub>3</sub> Quantum Dot Down-Conversion Layer. Advanced Optical Materials, 2019, 7, 1801812.	3.6	55
53	Hydrogen Doping Oxide Transistors: Analysis of Ultrahigh Apparent Mobility in Oxide Field-Effect Transistors (Adv. Sci. 7/2019). Advanced Science, 2019, 6, 1970040.	5.6	6
54	Analysis of Ultrahigh Apparent Mobility in Oxide Field-Effect Transistors. Advanced Science, 2019, 6, 1801189.	5.6	40

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55	High detectivity ITO/organolead halide perovskite Schottky photodiodes. <i>Semiconductor Science and Technology</i> , 2019, 34, 074004.	1.0	13
56	Flexible, active-matrix flat-panel image sensor for low dose X-ray detection enabled by integration of perovskite photodiode and oxide thin film transistor. , 2019, , .		9
57	Patterning Perovskite Thin Film via CYTOP Assisted Photolithography Process. , 2019, , .		0
58	P&#x2013;1.9: Ordered Crystalline Film Growth of Tips&#x2013;Pentacene and perovskite by Ultra&#x2013;sonic dispenser and their application as the active&#x2013;matrix of photodetectors. <i>Digest of Technical Papers SID International Symposium</i> , 2019, 50, 661-661.	0.1	0
59	Ultra-thin atom layer deposited alumina film enables the precise lifetime control of fully biodegradable electronic devices. <i>Nanoscale</i> , 2019, 11, 22369-22377.	2.8	7
60	High Efficiency Fully Inkjet Printed Multilayer OLEDs Using A Printable Organic Electronic Transport Layer. , 2019, , .		3
61	SnO<sub>2</sub>-rGO nanocomposite as an efficient electron transport layer for stable perovskite solar cells on AZO substrate. <i>Nanotechnology</i> , 2019, 30, 075202.	1.3	17
62	Precursor solution temperature dependence of the optical constants, band gap and Urbach tail in organic&#x2013;inorganic hybrid halide perovskite films. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 045103.	1.3	8
63	Precise Patterning of Large&#x2013;Scale TFT Arrays Based on Solution&#x2013;Processed Oxide Semiconductors: A Comparative Study of Additive and Subtractive Approaches. <i>Advanced Materials Interfaces</i> , 2018, 5, 1700981.	1.9	21
64	Verification Experiment of Simulating the Effect of Quarantine Source on Isolated Switch. , 2018, , .		0
65	Enhanced Detectivity and Suppressed Dark Current of Perovskite&#x2013;InGaZnO Phototransistor via a PCBM Interlayer. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 44144-44151.	4.0	50
66	Epsilon-near-zero medium for optical switches in a monolithic waveguide chip at 1.9 Î¼m. <i>Nanophotonics</i> , 2018, 7, 1835-1843.	2.9	33
67	Guided Formation of Large Crystals of Organic and Perovskite Semiconductors by an Ultrasonicated Dispenser and Their Application as the Active Matrix of Photodetectors. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 39921-39932.	4.0	6
68	Large Area Perovskite Solar Cell via Two-step Ultrasonic Spray Deposition. , 2018, , .		0
69	Atomic-layer-deposited ultra-thin VO<sub>x</sub> film as a hole transport layer for perovskite solar cells. <i>Semiconductor Science and Technology</i> , 2018, 33, 115016.	1.0	22
70	Flexible high energy density zinc-ion batteries enabled by binder-free MnO2/reduced graphene oxide electrode. <i>Npj Flexible Electronics</i> , 2018, 2, .	5.1	69
71	Enhancing the Electrical Uniformity and Reliability of the HfO<sub>2</sub>-Based RRAM Using High-Permittivity Ta<sub>2</sub>O<sub>5</sub> Side Wall. <i>IEEE Journal of the Electron Devices Society</i> , 2018, 6, 627-632.	1.2	17
72	Topology and Performance Optimization of a Novel Hybrid Material-Based Direct Current Fault Current Limiter. <i>IEEE Transactions on Magnetics</i> , 2018, 54, 1-5.	1.2	14

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73	Design and fabrication of photo-sensitive thin-film transistors with IGZO and organic photo-absorber. , 2018, , .		2
74	Oxide Semiconductor Phototransistor with Organolead Trihalide Perovskite Light Absorber. Advanced Electronic Materials, 2017, 3, 1600325.	2.6	58
75	CH <sub>3</sub> NH <sub>3</sub> Pb <sub>1-3x</sub> Br <sub>x</sub> perovskite solar cells via spray assisted two-step deposition: Impact of bromide on stability and cell performance. Materials and Design, 2017, 125, 222-229.	3.3	34
76	P&#8: Photocurrent Characteristics of Amorphous MgInO Thin Film Transistors. Digest of Technical Papers SID International Symposium, 2017, 48, 1254-1257.	0.1	1
77	Organolead trihalide perovskite as light absorber for IGZO phototransistor. , 2017, , .		1
78	Effects of deposition methods and processing techniques on band gap, interband electronic transitions, and optical absorption in perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> films. Applied Physics Letters, 2017, 111, .	1.5	10
79	Solution&#2/Processed MoS<sub>2</sub>/Organolead Trihalide Perovskite Photodetectors. Advanced Materials, 2017, 29, 1603995.	11.1	187
80	The influence of fullerene-based interlayers on CH<inf>3</inf>NH<inf>3</inf>Pb<inf>3</inf> Perovskite Photodetector. , 2017, , .		2
81	Verification Experiment of Simulating the Effect of Quarantine Source on Isolated Switch. , 2017, , .		0
82	Electron-transport layer free perovskite solar cells with anodized ITO electrode. , 2017, , .		0
83	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Br <sub>x</sub> perovskite solar cells via spray assisted two-step deposition: influence of bromide on the device performance. , 2017, , .		0
84	Photoreactive and Metal&#2/Platable Copolymer Inks for High&#2/throughput, Room&#2/temperature Printing of Flexible Metal Electrodes for Thin&#2/Film Electronics. Advanced Materials, 2016, 28, 4926-4934.	11.1	77
85	Enriched semiconducting single wall nanotubes as back contact for CdTe solar cell. , 2016, , .		1
86	The influence of chloride on interdiffusion method for perovskite solar cells. Materials Letters, 2016, 169, 236-240.	1.3	13
87	Enhanced Field Emission from a Carbon Nanotube Array Coated with a Hexagonal Boron Nitride Thin Film. Small, 2015, 11, 3710-3716.	5.2	38
88	Design consideration of uni-traveling carrier photodiode: Influence of doping profile and buffer layer. , 2015, , .		1
89	Simulation of perovskite solar cells with inorganic hole transporting materials. , 2015, , .		10
90	Uniform perovskite photovoltaic thin films via ultrasonic spray assisted deposition method. , 2015, , .		4

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91	Periodic Nanopillar N-I-P Amorphous Si Photovoltaic Cells Using Carbon Nanotube Scaffolds. IEEE Nanotechnology Magazine, 2014, 13, 997-1004.	1.1	3
92	Tuning the peak position of subwavelength silica nanosphere broadband antireflection coatings. Nanoscale Research Letters, 2014, 9, 361.	3.1	11
93	Vertically aligned carbon nanotube-based electrodes for hydrogen production by water electrolysis. Journal of Materials Research, 2013, 28, 927-932.	1.2	8
94	High-resolution image sensors get rolled up. Nature Electronics, 0, , .	13.1	0