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 g-index
94 all docs	94 docs citations	94 times ranked	3196 citing authors

#	Article	IF	Citations
1	Solutionâ€Processed MoS₂/Organolead Trihalide Perovskite Photodetectors. Advanced Materials, 2017, 29, 1603995.	11.1	187
2	Fine-tuning of side-chain orientations on nonfullerene acceptors enables organic solar cells with 17.7% efficiency. Energy and Environmental Science, 2021, 14, 3469-3479.	15.6	158
3	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
4	Inkjet printed uniform quantum dots as color conversion layers for full-color OLED displays. Nanoscale, 2020, 12, 2103-2110.	2.8	114
5	Flexible quasi-solid-state zinc ion batteries enabled by highly conductive carrageenan bio-polymer electrolyte. RSC Advances, 2019, 9, 16313-16319.	1.7	88
6	Photoreactive and Metalâ€Platable Copolymer Inks for Highâ€Throughput, Roomâ€Temperature Printing of Flexible Metal Electrodes for Thinâ€Film Electronics. Advanced Materials, 2016, 28, 4926-4934.	11.1	77
7	Flexible and stable quasi-solid-state zinc ion battery with conductive guar gum electrolyte. Materials Today Energy, 2019, 14, 100349.	2.5	77
8	Deciphering the Role of Chalcogen-Containing Heterocycles in Nonfullerene Acceptors for Organic Solar Cells. ACS Energy Letters, 2020, 5, 3415-3425.	8.8	73
9	Flexible high energy density zinc-ion batteries enabled by binder-free MnO2/reduced graphene oxide electrode. Npj Flexible Electronics, 2018, 2, .	5.1	69
10	Large-area patterning of full-color quantum dot arrays beyond 1000 pixels per inch by selective electrophoretic deposition. Nature Communications, 2021, 12, 4603.	5.8	64
11	Oxide Semiconductor Phototransistor with Organolead Trihalide Perovskite Light Absorber. Advanced Electronic Materials, 2017, 3, 1600325.	2.6	58
12	Enhanced UVâ€C Detection of Perovskite Photodetector Arrays via Inorganic CsPbBr₃ Quantum Dot Downâ€Conversion Layer. Advanced Optical Materials, 2019, 7, 1801812.	3.6	55
13	Enhanced Detectivity and Suppressed Dark Current of Perovskiteâ€“InGaZnO Phototransistor via a PCBM Interlayer. ACS Applied Materials & Interfaces, 2018, 10, 44144-44151.	4.0	50
14	One-step synthesis of MnO_x/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
15	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
16	Analysis of Ultrahigh Apparent Mobility in Oxide Fieldâ€Effect Transistors. Advanced Science, 2019, 6, 1801189.	5.6	40
17	An aqueous zincâ€ion battery working at â^'50Â°C enabled by lowâ€concentration perchlorateâ€based chaotropic salt electrolyte. EcoMat, 2022, 4, .	6.8	40
18	Enhanced Field Emission from a Carbon Nanotube Array Coated with a Hexagonal Boron Nitride Thin Film. Small, 2015, 11, 3710-3716.	5.2	38

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19	CH 3 NH 3 PbI 3â^'x Br x 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
20	Epsilon-near-zero medium for optical switches in a monolithic waveguide chip at 1.9 Î¼m. Nanophotonics, 2018, 7, 1835-1843.	2.9	33
21	Enhanced Uniformity and Stability of Pbâ€“Sn Perovskite Solar Cells via Me 4 NBr Passivation. Advanced Materials Interfaces, 2019, 6, 1900413.	1.9	33
22	Lowâ€Dimensional Contact Layers for Enhanced Perovskite Photodiodes. Advanced Functional Materials, 2020, 30, 2001692.	7.8	30
23	A high-performance free-standing Zn anode for flexible zinc-ion batteries. Nanoscale, 2021, 13, 10100-10107.	2.8	30
24	Enhanced UVâ€“visible detection of InGaZnO phototransistors via CsPbBr₃ quantum dots. Semiconductor Science and Technology, 2019, 34, 125013.	1.0	25
25	Atomic-layer-deposited ultra-thin VO_x film as a hole transport layer for perovskite solar cells. Semiconductor Science and Technology, 2018, 33, 115016.	1.0	22
26	Precise Patterning of Largeâ€Scale TFT Arrays Based on Solutionâ€Processed Oxide Semiconductors: A Comparative Study of Additive and Subtractive Approaches. Advanced Materials Interfaces, 2018, 5, 1700981.	1.9	21
27	Spinâ€Onâ€Patterning of Snâ€“Pb Perovskite Photodiodes on IGZO Transistor Arrays for Fast Activeâ€Matrix Nearâ€Infrared Imaging. Advanced Materials Technologies, 2020, 5, 1900752.	3.0	21
28	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
29	Controlling Performance of Organicâ€“Inorganic Hybrid Perovskite Triboelectric Nanogenerators via Chemical Composition Modulation and Electric Fieldâ€Induced Ion Migration. Advanced Energy Materials, 2020, 10, 2002470.	10.2	19
30	Enhancing the Electrical Uniformity and Reliability of the HfO₂-Based RRAM Using High-Permittivity Ta₂O₅ Side Wall. IEEE Journal of the Electron Devices Society, 2018, 6, 627-632.	1.2	17
31	SnO₂-rGO nanocomposite as an efficient electron transport layer for stable perovskite solar cells on AZO substrate. Nanotechnology, 2019, 30, 075202.	1.3	17
32	Inductive Fault Current Limiters in VSC-HVDC Systems: A Review. IEEE Access, 2020, 8, 38185-38197.	2.6	17
33	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
34	Saturatedâ€core fault current limiters for AC power systems: Towards reliable, economical and better performance application. High Voltage, 2020, 5, 416-424.	2.7	15
35	Topology and Performance Optimization of a Novel Hybrid Material-Based Direct Current Fault Current Limiter. IEEE Transactions on Magnetics, 2018, 54, 1-5.	1.2	14
36	Reduced graphene oxide-induced crystallization of CuPc interfacial layer for high performance of perovskite photodetectors. RSC Advances, 2019, 9, 3800-3808.	1.7	14

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37	The influence of chloride on interdiffusion method for perovskite solar cells. Materials Letters, 2016, 169, 236-240.	1.3	13
38	Narrow Bandgap Pbâ€“Sn Perovskites/InGaZnO Hybrid Phototransistors for Nearâ€Infrared Detection. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900417.	0.8	13
39	High detectivity ITO/organolead halide perovskite Schottky photodiodes. Semiconductor Science and Technology, 2019, 34, 074004.	1.0	13
40	Polyacrylic acid assisted synthesis of free-standing MnO₂/CNTs cathode for Zinc-ion batteries. Nanotechnology, 2020, 31, 375401.	1.3	13
41	Visible-light-stimulated synaptic InGaZnO phototransistors enabled by wavelength-tunable perovskite quantum dots. Nanoscale Advances, 2021, 3, 5046-5052.	2.2	13
42	A Novel Six-Leg Three-Phase Fault Current Limiter. IEEE Transactions on Power Delivery, 2020, 35, 1707-1715.	2.9	12
43	A comparison study of MnO₂ and Mn₂O₃ as zinc-ion battery cathodes: an experimental and computational investigation. RSC Advances, 2021, 11, 14408-14414.	1.7	12
44	Highly conductive locust bean gum bio-electrolyte for superior long-life quasi-solid-state zinc-ion batteries. RSC Advances, 2021, 11, 24862-24871.	1.7	12
45	X-ray Sensitive hybrid organic photodetectors with embedded CsPbBr3 perovskite quantum dots. Organic Electronics, 2021, 98, 106306.	1.4	12
46	How Materials and Device Factors Determine the Performance: A Unified Solution for Transistors with Nontrivial Gates and Transistorâ€“Diode Hybrid Integration. Advanced Science, 2022, 9, e2104896.	5.6	12
47	Tuning the peak position of subwavelength silica nanosphere broadband antireflection coatings. Nanoscale Research Letters, 2014, 9, 361.	3.1	11
48	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
49	Pixellated Perovskite Photodiode on IGZO Thin Film Transistor Backplane for Low Dose Indirect X-Ray Detection. IEEE Journal of the Electron Devices Society, 2021, 9, 96-101.	1.2	11
50	Simulation of perovskite solar cells with inorganic hole transporting materials. , 2015, , .		10
51	Effects of deposition methods and processing techniques on band gap, interband electronic transitions, and optical absorption in perovskite CH3NH3PbI3 films. Applied Physics Letters, 2017, 111, .	1.5	10
52	75â€4: Inkjetâ€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
53	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
54	A Novel Multi-Function Saturated-Core Fault Current Limiter. IEEE Transactions on Magnetics, 2019, 55, 1-5.	1.2	9

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55	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
56	Vertically aligned carbon nanotube-based electrodes for hydrogen production by water electrolysis. Journal of Materials Research, 2013, 28, 927-932.	1.2	8
57	Precursor solution temperature dependence of the optical constants, band gap and Urbach tail in organicâ€“inorganic hybrid halide perovskite films. Journal Physics D: Applied Physics, 2019, 52, 045103.	1.3	8
58	Coexistence of Contact Electrification and Dynamic pâ€“n Junction Modulation Effects in Triboelectrification. ACS Applied Materials & Interfaces, 2022, 14, 30410-30419.	4.0	8
59	Ultra-thin atom layer deposited alumina film enables the precise lifetime control of fully biodegradable electronic devices. Nanoscale, 2019, 11, 22369-22377.	2.8	7
60	Flexible indirect x-ray detector enabled by organic photodiode and CsPbBr₃ perovskite quantum dot scintillator. Flexible and Printed Electronics, 2021, 6, 015008.	1.5	7
61	Guided Formation of Large Crystals of Organic and Perovskite Semiconductors by an Ultrasonicated Dispenser and Their Application as the Active Matrix of Photodetectors. ACS Applied Materials & Interfaces, 2018, 10, 39921-39932.	4.0	6
62	:Hydrogen Doping Oxide Transistors: Analysis of Ultrahigh Apparent Mobility in Oxide Fieldâ€Effect Transistors (Adv. Sci. 7/2019). Advanced Science, 2019, 6, 1970040.	5.6	6
63	An Active Matrix Miniâ€LEDs Backlight based on aâ€Si. Digest of Technical Papers SID International Symposium, 2020, 51, 62-64.	0.1	5
64	Dual Organic Spacer Cation Quasiâ€2D Snâ€“Pb Perovskite for Solar Cells and Nearâ€Infrared Photodetectors Application. Advanced Photonics Research, 2022, 3, .	1.7	5
65	Uniform perovskite photovoltaic thin films via ultrasonic spray assisted deposition method. , 2015, , .		4
66	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
67	A Novel Modularization Design Method of PM Biased SCFCL Considering Leakage Flux Effect and Permeance Matrix Modeling. IEEE Transactions on Power Delivery, 2021, 36, 2881-2892.	2.9	4
68	Thorough Elimination of Persistent Photoconduction in Amorphous InZnO Thin-Film Transistor via Dual-Gate Pulses. IEEE Electron Device Letters, 2022, 43, 1247-1250.	2.2	4
69	Periodic Nanopillar N-I-P Amorphous Si Photovoltaic Cells Using Carbon Nanotube Scaffolds. IEEE Nanotechnology Magazine, 2014, 13, 997-1004.	1.1	3
70	High Efficiency Fully Inkjet Printed Multilayer OLEDs Using A Printable Organic Electronic Transport Layer. , 2019, , .		3
71	A New Compensation Pixel Circuit Based on A-Si TFTs. , 2020, , .		3
72	Investigation of the S-Shaped Currentâ€“Voltage Curve in High Open-Circuit Voltage Ruddlesdenâ€“Popper Perovskite Solar Cells. Frontiers in Energy Research, 2021, 9, .	1.2	3

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73	The influence of fullerene-based interlayers on CH<inf>3</inf>NH<inf>3</inf>PbI<inf>3</inf> Perovskite Photodetector. , 2017, , .		2
74	Design and fabrication of photo-sensitive thin-film transistors with IGZO and organic photo-absorber. , 2018, , .		2
75	Effect of Monoethanolamine Stabilizer on the Solution-Processed InGaZnO Thin-film Transistors. , 2021, , .		2
76	Design consideration of uni-traveling carrier photodiode: Influence of doping profile and buffer layer. , 2015, , .		1
77	Enriched semiconducting single wall nanotubes as back contact for CdTe solar cell. , 2016, , .		1
78	Pâ€8: Photocurrent Characteristics of Amorphous MgInO Thin Film Transistors. Digest of Technical Papers SID International Symposium, 2017, 48, 1254-1257.	0.1	1
79	Organolead trihalide perovskite as light absorber for IGZO phototransistor. , 2017, , .		1
80	Development of a compact high-voltage pulser for hypervelocity microparticles injector. Review of Scientific Instruments, 2019, 90, 083305.	0.6	1
81	Optimization of PMMA:PCBM Interlayer for MAPbI₃/IGZO Phototransistor. , 2020, , .		1
82	A System-Level Approach towards a Hybrid Energy Harvesting Glove. Sensors, 2021, 21, 5349.	2.1	1
83	A New Pixel Circuit for Active Matrix Mini&Micro Light Emitting Diodes. , 2022, , .		1
84	Verification Experiment of Simulating the Effect of Quarantine Source on Isolated Switch. , 2017, , .		0
85	Electron-transport layer free perovskite solar cells with anodized ITO electrode. , 2017, , .		0
86	CH3NH3PbI3-xBrx perovskite solar cells via spray assisted two-step deposition: influence of bromide on the device performance. , 2017, , .		0
87	Verification Experiment of Simulating the Effect of Quarantine Source on Isolated Switch. , 2018, , .		0
88	Large Area Perovskite Solar Cell via Two-step Ultrasonic Spray Deposition. , 2018, , .		0
89	Patterning Perovskite Thin Film via CYTOP Assisted Photolithography Process. , 2019, , .		0
90	Pâ€1.9: Ordered Crystalline Film Growth of Tipsâ€Pentacene and perovskite by Ultraâ€sonic dispenser and their application as the activeâ€matrix of photodetectors. Digest of Technical Papers SID International Symposium, 2019, 50, 661-661.	0.1	0

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91	Ultrasonic Spray Deposition of aâ€IGZO Thin Film Transistor on Substrate with Hydrophilic Patterns. Digest of Technical Papers SID International Symposium, 2020, 51, 187-189.	0.1	0
92	Impact of Diverse Ambient Illuminations on a Flexible Photosensitive Energy Scavenger. , 2021, , .		0
93	High-resolution image sensors get rolled up. Nature Electronics, 0, , .	13.1	0
94	The Limitation of Threshold-Voltage Compensation Range for Internal Compensation Circuit in the AM-MiniLED Pixel Structure. , 2022, , .		0