

# Chunfu Zhang

## List of Publications by Year in descending order

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196  
papers

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docs citations

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times ranked

5805  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Performance Planar Perovskite Solar Cells Using Low Temperature, Solution-Based Nickel Oxide Hole Transporting Layer with Efficiency Exceeding 20%. <i>Advanced Energy Materials</i> , 2018, 8, 1703432.	19.5	279
2	A simple and efficient solar cell parameter extraction method from a single current-voltage curve. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	216
3	Intermolecular Exchange Boosts Efficiency of Air-Stable, Carbon-Based All-Inorganic Planar CsPbI <sub>2</sub> Br Perovskite Solar Cells to Over 9%. <i>Advanced Energy Materials</i> , 2018, 8, 1802080.	19.5	215
4	Enhancing the photovoltaic performance of planar heterojunction perovskite solar cells by doping the perovskite layer with alkali metal ions. <i>Journal of Materials Chemistry A</i> , 2016, 4, 16546-16552.	10.3	143
5	Interface engineering of low temperature processed all-inorganic CsPbI <sub>2</sub> Br perovskite solar cells toward PCE exceeding 14%. <i>Nano Energy</i> , 2019, 60, 583-590.	16.0	135
6	Mixed-solvent-vapor annealing of perovskite for photovoltaic device efficiency enhancement. <i>Nano Energy</i> , 2016, 28, 417-425.	16.0	114
7	Dual-Phase CsPbCl <sub>3</sub> -Cs <sub>4</sub> PbCl <sub>6</sub> Perovskite Films for Self-Powered, Visible-Blind UV Photodetectors with Fast Response. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 32961-32969.	8.0	114
8	Band Alignment Engineering Towards High Efficiency Carbon-Based Inorganic Planar CsPbI <sub>2</sub> Br Perovskite Solar Cells. <i>ChemSusChem</i> , 2019, 12, 2318-2325.	6.8	110
9	High-Efficiency (>14%) and Air-Stable Carbon-Based, All-Inorganic CsPbI <sub>2</sub> Br Perovskite Solar Cells through a Top-Seeded Growth Strategy. <i>ACS Energy Letters</i> , 0, , 1500-1510.	17.4	106
10	Light Processing Enables Efficient Carbon-Based, All-Inorganic Planar CsPbI <sub>2</sub> Br Solar Cells with High Photovoltages. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 2997-3005.	8.0	98
11	Performance Improvement of Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> -Based Ferroelectric-Field-Effect Transistors With ZrO <sub>2</sub> Seed Layers. <i>IEEE Electron Device Letters</i> , 2019, 40, 714-717.	3.9	95
12	Device simulation of inverted CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> xClx perovskite solar cells based on PCBM electron transport layer and NiO hole transport layer. <i>Solar Energy</i> , 2018, 169, 11-18.	6.1	92
13	Highly Efficient and Stable Planar Perovskite Solar Cells with Modulated Diffusion Passivation Toward High Power Conversion Efficiency and Ultrahigh Fill Factor. <i>Solar Rrl</i> , 2019, 3, 1900293.	5.8	87
14	Progress in state-of-the-art technologies of Ga <sub>2</sub> O <sub>3</sub> devices. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 243001.	2.8	86
15	Field-Plated Lateral $\hat{2}$ -Ga <sub>2</sub> O <sub>3</sub> Schottky Barrier Diode with High Reverse Blocking Voltage of More Than 3 kV and High DC Power Figure-of-Merit of 500 MW/cm <sup>2</sup> . <i>IEEE Electron Device Letters</i> , 2018, , 1-1.	3.9	85
16	High-Performance Vertical $\hat{2}$ -Ga <sub>2</sub> O <sub>3</sub> Schottky Barrier Diode With Implanted Edge Termination. <i>IEEE Electron Device Letters</i> , 2019, 40, 1788-1791.	3.9	84
17	Interfacial Voids Trigger Carbon-Based, All-Inorganic CsPbI <sub>2</sub> Br Perovskite Solar Cells with Photovoltage Exceeding 1.33V. <i>Nano-Micro Letters</i> , 2020, 12, 87.	27.0	84
18	Solar blind deep ultraviolet $\hat{2}$ -Ga <sub>2</sub> O <sub>3</sub> photodetectors grown on sapphire by the Mist-CVD method. <i>Optical Materials Express</i> , 2018, 8, 2941.	3.0	83

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19	Aged Precursor Solution toward Low-Temperature Fabrication of Efficient Carbon-Based All-Inorganic Planar CsPbI <sub>2</sub> Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 4991-4997.	5.1	83
20	Enhanced efficiency of planar perovskite solar cells via a two-step deposition using DMF as an additive to optimize the crystal growth behavior. Journal of Materials Chemistry A, 2017, 5, 13032-13038.	10.3	82
21	Enhanced planar perovskite solar cell efficiency and stability using a perovskite/PCBM heterojunction formed in one step. Nanoscale, 2018, 10, 3053-3059.	5.6	80
22	A review of the most recent progresses of state-of-art gallium oxide power devices. Journal of Semiconductors, 2019, 40, 011803.	3.7	80
23	Diamond Field Effect Transistors With MoO <sub>3</sub> Gate Dielectric. IEEE Electron Device Letters, 2017, 38, 786-789.	3.9	75
24	Performance Enhancement of Planar Heterojunction Perovskite Solar Cells through Tuning the Doping Properties of Hole-Transporting Materials. ACS Omega, 2017, 2, 326-336.	3.5	72
25	Î <sup>2</sup> -Ga <sub>2</sub> O <sub>3</sub> hetero-junction barrier Schottky diode with reverse leakage current modulation and BV <sub>2</sub> /Ron,sp value of 0.93 GW/cm <sup>2</sup> . Applied Physics Letters, 2021, 118, .	3.3	72
26	Enhanced Planar Perovskite Solar Cell Performance via Contact Passivation of TiO <sub>2</sub> /Perovskite Interface with NaCl Doping Approach. ACS Applied Energy Materials, 2018, 1, 3826-3834.	5.1	68
27	Low-Temperature Solution-Processed ZnO Electron Transport Layer for Highly Efficient and Stable Planar Perovskite Solar Cells with Efficiency Over 20%. Solar Rrl, 2019, 3, 1900096.	5.8	66
28	Boosting performance of perovskite solar cells with Graphene quantum dots decorated SnO <sub>2</sub> electron transport layers. Applied Surface Science, 2020, 507, 145099.	6.1	66
29	Memory Window and Endurance Improvement of Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> -Based FeFETs with ZrO <sub>2</sub> Seed Layers Characterized by Fast Voltage Pulse Measurements. Nanoscale Research Letters, 2019, 14, 254.	5.7	63
30	Elucidating the Roles of TiCl <sub>4</sub> and PCBM Fullerene Treatment on TiO <sub>2</sub> Electron Transporting Layer for Highly Efficient Planar Perovskite Solar Cells. Journal of Physical Chemistry C, 2018, 122, 1044-1053.	3.1	57
31	Polyelectrolyte-Deposited SnO <sub>2</sub> as a Tunable Electron Transport Layer for High-Efficiency and Stable Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900336.	5.8	56
32	Efficient bifacial semitransparent perovskite solar cells with silver thin film electrode. Solar Energy Materials and Solar Cells, 2017, 170, 278-286.	6.2	55
33	Efficient Bifacial Semitransparent Perovskite Solar Cells Using Ag <sub>2</sub> O <sub>5</sub> as Transparent Anodes. ACS Applied Materials & Interfaces, 2018, 10, 12731-12739.	8.0	46
34	Low temperature aqueous solution-processed Li doped ZnO buffer layers for high performance inverted organic solar cells. Journal of Materials Chemistry C, 2016, 4, 6169-6175.	5.5	45
35	Normally-Off- $\beta$ -Ga <sub>2</sub> O <sub>3</sub> Power MOSFET With Ferroelectric Charge Storage Gate Stack Structure. IEEE Electron Device Letters, 2020, 41, 333-336.	3.9	43
36	Interface studies of the planar heterojunction perovskite solar cells. Solar Energy Materials and Solar Cells, 2016, 157, 783-790.	6.2	42

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37	Tin-assisted growth of $\text{In}_2\text{Ga}_2\text{O}_3$ film and the fabrication of photodetectors on sapphire substrate by PLD. <i>Optical Materials Express</i> , 2018, 8, 3506.	3.0	41
38	Design and fabrication of field-plated normally off $\text{In}_2\text{Ga}_2\text{O}_3$ MOSFET with laminated-ferroelectric charge storage gate for high power application. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	40
39	Recycling of $\text{FTO/TiO}_2$ Substrates: Route toward Simultaneously High-Performance and Cost-Efficient Carbon-Based, All-Inorganic $\text{CsPbI}_2\text{Br}_2$ Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 4549-4557.	8.0	38
40	Thermally Stable and Radiation Hard Ferroelectric $\text{Hf}_{0.5}\text{Zr}_{0.5}\text{O}_2$ Thin Films on Muscovite Mica for Flexible Nonvolatile Memory Applications. <i>ACS Applied Electronic Materials</i> , 2019, 1, 919-927.	4.3	37
41	Benign Pinholes in $\text{CsPbI}_2\text{Br}_2$ Absorber Film Enable Efficient Carbon-Based, All-Inorganic Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2019, 2, 5254-5262.	5.1	37
42	Efficient $\text{NiO}_x$ Hole Transporting Layer Obtained by the Oxidation of Metal Nickel Film for Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2019, 2, 4700-4707.	5.1	37
43	An efficient $\text{TeO}_2/\text{Ag}$ transparent top electrode for 20%-efficiency bifacial perovskite solar cells with a bifaciality factor exceeding 80%. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15156-15163.	10.3	37
44	Heteroepitaxial growth of $\text{In}_2\text{Ga}_2\text{O}_3$ thin films on a-, c- and r-plane sapphire substrates by low-cost mist-CVD method. <i>Journal of Alloys and Compounds</i> , 2020, 831, 154776.	5.5	36
45	Ultrahigh-Performance Solar-Blind Photodetectors Based on High Quality Heteroepitaxial Single Crystalline $\text{In}_2\text{Ga}_2\text{O}_3$ Film Grown by Vacuumfree, Low-Cost Mist Chemical Vapor Deposition. <i>Advanced Materials Technologies</i> , 2021, 6, 2001296.	5.8	36
46	High temperature (300 $^\circ\text{C}$ ) ALD grown $\text{Al}_2\text{O}_3$ on hydrogen terminated diamond: Band offset and electrical properties of the MOSFETs. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	35
47	Improving Electron Extraction Ability and Device Stability of Perovskite Solar Cells Using a Compatible PCBM/AZO Electron Transporting Bilayer. <i>Nanomaterials</i> , 2018, 8, 720.	4.1	34
48	Intermediate Phase Halide Exchange Strategy toward a High-Quality, Thick $\text{CsPbBr}_3$ Film for Optoelectronic Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 22543-22549.	8.0	34
49	Suppressing Halide Phase Segregation in $\text{CsPbI}_2\text{Br}_2$ Films by Polymer Modification for Hysteresis-Less All-Inorganic Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 2868-2878.	8.0	34
50	High-Performance $\text{In}_2\text{Ga}_2\text{O}_3$ Solar-Blind Schottky Barrier Photodiode With Record Detectivity and Ultrahigh Gain via Carrier Multiplication Process. <i>IEEE Electron Device Letters</i> , 2020, 41, 1794-1797.	3.9	33
51	Interface engineering of $\text{TiO}_2$ /perovskite interface via fullerene derivatives for high performance planar perovskite solar cells. <i>Organic Electronics</i> , 2018, 62, 459-467.	2.6	32
52	Improvement of transparent silver thin film anodes for organic solar cells with a decreased percolation threshold of silver. <i>Solar Energy Materials and Solar Cells</i> , 2014, 127, 193-200.	6.2	30
53	Effects of Annealing Conditions on Mixed Lead Halide Perovskite Solar Cells and Their Thermal Stability Investigation. <i>Materials</i> , 2017, 10, 837.	2.9	30
54	Device Simulation of Organic-Inorganic Halide Perovskite/Crystalline Silicon Four-Terminal Tandem Solar Cell With Various Antireflection Materials. <i>IEEE Journal of Photovoltaics</i> , 2018, 8, 1685-1691.	2.5	30

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55	Inverted Organic Photovoltaic Cells with Solution-Processed Zinc Oxide as Electron Collecting Layer. Japanese Journal of Applied Physics, 2011, 50, 082302.	1.5	30
56	A 800â€‰%V Î²â€‰Ga<sub>2</sub>O<sub>3</sub> Metalâ€‰“Oxideâ€‰“Semiconductor Fieldâ€‰Effect Transistor with Highâ€‰Power Figure of Merit of Over 86.3â€‰%MWâ€‰%cm<sup>âˆ”2</sup>. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900421.	1.8	29
57	Flux-mediated growth strategy enables low-temperature fabrication of high-efficiency all-inorganic CsPbIBr <sub>2</sub> perovskite solar cells. Electrochimica Acta, 2020, 330, 135325.	5.2	29
58	Investigation of temperature dependent electrical characteristics on Au/Ni/Î²-Ga <sub>2</sub> O <sub>3</sub> Schottky diodes. Superlattices and Microstructures, 2018, 119, 212-217.	3.1	28
59	Sacrificial additive-assisted film growth endows self-powered CsPbBr<sub>3</sub> photodetectors with ultra-low dark current and high sensitivity. Journal of Materials Chemistry C, 2020, 8, 209-218.	5.5	28
60	High Performance Î²-Ga<sub>2</sub>O<sub>3</sub> Solar-Blind Metalâ€‰“Oxideâ€‰“Semiconductor Field-Effect Phototransistor With Hafnium Oxide Gate Dielectric Process. IEEE Electron Device Letters, 2021, 42, 545-548.	3.9	28
61	Interfacial TiO <sub>2</sub> atomic layer deposition triggers simultaneous crystallization control and band alignment for efficient CsPbIBr <sub>2</sub> perovskite solar cell. Organic Electronics, 2019, 74, 103-109.	2.6	27
62	Ultrawide Band Gap Oxide Semiconductor-Triggered Performance Improvement of Perovskite Solar Cells via the Novel Ga<sub>2</sub>O<sub>3</sub>/SnO<sub>2</sub> Composite Electron-Transporting Bilayer. ACS Applied Materials & Interfaces, 2020, 12, 54703-54710.	8.0	26
63	Effect of polyelectrolyte interlayer on efficiency and stability of p-i-n perovskite solar cells. Solar Energy, 2016, 139, 190-198.	6.1	25
64	Suppressing intrinsic self-doping of CsPbIBr<sub>2</sub> films for high-performance all-inorganic, carbon-based perovskite solar cells. Sustainable Energy and Fuels, 2020, 4, 4506-4515.	4.9	25
65	Performance Comparison of Conventional and Inverted Organic Bulk Heterojunction Solar Cells From Optical and Electrical Aspects. IEEE Transactions on Electron Devices, 2013, 60, 451-457.	3.0	24
66	Highly efficient perovskite solar cells based on a dopant-free conjugated DPP polymer hole transport layer: influence of solvent vapor annealing. Sustainable Energy and Fuels, 2018, 2, 2154-2159.	4.9	24
67	Flexible Solar-Blind Ga<sub>2</sub>O<sub>3</sub> Ultraviolet Photodetectors With High Responsivity and Photo-to-Dark Current Ratio. IEEE Photonics Journal, 2019, 11, 1-9.	2.0	24
68	Efficient planar perovskite solar cells with low-temperature atomic layer deposited TiO <sub>2</sub> electron transport layer and interfacial modifier. Solar Energy, 2019, 188, 239-246.	6.1	24
69	Investigation of Î²-Ga <sub>2</sub> O <sub>3</sub> thin films grown on epi-GaN/sapphire(0001) substrates by low pressure MOCVD. Journal of Alloys and Compounds, 2021, 859, 157810.	5.5	24
70	Inverted Organic Solar Cells with Low-Temperature Al-Doped-ZnO Electron Transport Layer Processed from Aqueous Solution. Polymers, 2018, 10, 127.	4.5	23
71	Efficient Ni/Au Mesh Transparent Electrodes for ITO-Free Planar Perovskite Solar Cells. Nanomaterials, 2019, 9, 932.	4.1	23
72	Influence of Carrier Gases on the Quality of Epitaxial Corundum-Structured Î±-Ga <sub>2</sub> O <sub>3</sub> Films Grown by Mist Chemical Vapor Deposition Method. Materials, 2019, 12, 3670.	2.9	23

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73	High Performance Single Crystalline Diamond Normally-Off Field Effect Transistors. IEEE Journal of the Electron Devices Society, 2019, 7, 82-87.	2.1	23
74	Efficient "Light-soaking"-free Inverted Organic Solar Cells with Aqueous Solution Processed Low-Temperature ZnO Electron Extraction Layers. ACS Applied Materials & Interfaces, 2013, 5, 13318-13324.	8.0	22
75	Enhanced planar heterojunction perovskite solar cell performance and stability using PDDA polyelectrolyte capping agent. Solar Energy Materials and Solar Cells, 2017, 172, 133-139.	6.2	22
76	Investigation of Fe <sup>2+</sup> -incorporating organic-inorganic hybrid perovskites from first principles and experiments. RSC Advances, 2017, 7, 54586-54593.	3.6	22
77	High performance transient organic solar cells on biodegradable polyvinyl alcohol composite substrates. RSC Advances, 2017, 7, 52930-52937.	3.6	22
78	Optical properties of (Al Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> on sapphire. Superlattices and Microstructures, 2018, 114, 82-88.	3.1	22
79	Band alignments of SiO <sub>2</sub> and HfO <sub>2</sub> dielectrics with (Al Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> film (0 ≤ x ≤ 0.53) grown on Ga <sub>2</sub> O <sub>3</sub> buffer layer on sapphire. Journal of Alloys and Compounds, 2018, 745, 292-298.	5.5	22
80	Low temperature combustion synthesized indium oxide electron transport layer for high performance and stable perovskite solar cells. Journal of Power Sources, 2019, 438, 226981.	7.8	22
81	Improving the production of high-performance solar-blind In <sup>2+</sup> -Ga <sub>2</sub> O <sub>3</sub> photodetectors by controlling the growth pressure. Journal of Materials Science, 2019, 54, 10335-10345.	3.7	21
82	Controlling aggregation and crystallization of solution processed diketopyrrolopyrrole based polymer for high performance thin film transistors by pre-metered slot die coating process. Organic Electronics, 2016, 36, 113-119.	2.6	20
83	A PCBM-Modified TiO <sub>2</sub> Blocking Layer towards Efficient Perovskite Solar Cells. International Journal of Photoenergy, 2017, 2017, 1-9.	2.5	20
84	The Investigation of In <sup>2+</sup> -Ga <sub>2</sub> O <sub>3</sub> Schottky Diode with Floating Field Ring Termination and the Interface States. ECS Journal of Solid State Science and Technology, 2020, 9, 025001.	1.8	20
85	Theoretical and Experimental Investigation of Mixed Pb-In Halide Perovskites. Journal of Physical Chemistry C, 2018, 122, 15945-15953.	3.1	19
86	Theoretical investigation of tensile strained GeSn waveguide with Si <sub>3</sub> N <sub>4</sub> liner stressor for mid-infrared detector and modulator applications. Optics Express, 2015, 23, 7924.	3.4	18
87	Efficient Planar Hybrid n-Si/PEDOT:PSS Solar Cells with Power Conversion Efficiency up to 13.31% Achieved by Controlling the SiO <sub>x</sub> Interlayer. Energies, 2018, 11, 1397.	3.1	18
88	High-Performance, Vacuum-Free, and Self-Powered CsPbI <sub>2</sub> Photodetectors Boosted by Ultra-Wide-Bandgap Ga <sub>2</sub> O <sub>3</sub> Interlayer. IEEE Electron Device Letters, 2020, 41, 1532-1535.	3.9	17
89	Polycrystalline Diamond MOSFET With MoO <sub>3</sub> Gate Dielectric and Passivation Layer. IEEE Electron Device Letters, 2017, 38, 1302-1304.	3.9	15
90	High-performance high electron mobility transistors with GaN/InGaN composite channel and superlattice back barrier. Applied Physics Letters, 2019, 115, 072105.	3.3	15

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91	1.3 kV Reverse-Blocking AlGaIn/GaN MISHEMT With Ultralow Turn-On Voltage 0.25 V. IEEE Journal of the Electron Devices Society, 2021, 9, 125-129.	2.1	15
92	Synchronous Interface Modification and Bulk Passivation via a One-Step Cesium Bromide Diffusion Process for Highly Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 10110-10119.	8.0	15
93	Promising applications of wide bandgap inorganic perovskites in underwater photovoltaic cells. Solar Energy, 2022, 233, 489-493.	6.1	15
94	Intermediate Phase Intermolecular Exchange Triggered Defect Elimination in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> toward Room-Temperature Fabrication of Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 40378-40385.	8.0	14
95	Thin-film transistors based on wide bandgap Ga <sub>2</sub> O <sub>3</sub> films grown by aqueous solution spin-coating method. Micro and Nano Letters, 2019, 14, 1052-1055.	1.3	14
96	Wafer-Scale SiC/GaN Monolithic Integrated E-Mode Cascode FET Realized by Transfer Printing and Self-Aligned Etching Technology. IEEE Transactions on Electron Devices, 2020, 67, 3304-3308.	3.0	14
97	Demonstration of High-Performance 4H-SiC MISIM Ultraviolet Photodetector With Operation Temperature of 550 °C and High Responsivity. IEEE Transactions on Electron Devices, 2021, 68, 5662-5665.	3.0	14
98	Stability Improvement of Perovskite Solar Cells by the Moisture-Resistant PMMA:Spiro-OMeTAD Hole Transport Layer. Polymers, 2022, 14, 343.	4.5	14
99	High performance hydrogen/oxygen terminated CVD single crystal diamond radiation detector. Applied Physics Letters, 2020, 116, .	3.3	13
100	Demonstration of a 2 kV Al <sub>0.85</sub> Ga <sub>0.15</sub> N Schottky Barrier Diode With Improved On-Current and Ideality Factor. IEEE Electron Device Letters, 2020, 41, 457-460.	3.9	13
101	Annealing-Free, High-Performance Perovskite Solar Cells by Controlling Crystallization via Guanidinium Cation Doping. Solar Rrl, 2021, 5, 2100097.	5.8	13
102	Design and Fabrication of Vertical Metal/TiO <sub>2</sub> /In <sub>2</sub> -Ga <sub>2</sub> O <sub>3</sub> Dielectric Heterojunction Diode With Reverse Blocking Voltage of 1010 V. IEEE Transactions on Electron Devices, 2020, 67, 5628-5632.	3.0	13
103	Intermediate Phase-Assisted Sequential Deposition Toward 15.24% Efficiency Carbon Electrode CsPbI <sub>2</sub> Perovskite Solar Cells. Solar Rrl, 2022, 6, .	5.8	13
104	A Modulated Double-Passivation Strategy Toward Highly Efficient Perovskite Solar Cells with Efficiency Over 21%. Solar Rrl, 2019, 3, 1900291.	5.8	12
105	High-performance Acetone Soluble Tape Transfer Printing Method for Heterogeneous Integration. Scientific Reports, 2019, 9, 15769.	3.3	12
106	Combustion-processed NiO/ALD TiO <sub>2</sub> bilayer as a novel low-temperature electron transporting material for efficient all-inorganic CsPbBr <sub>2</sub> solar cell. Solar Energy, 2020, 203, 10-18.	6.1	12
107	High performance gate tunable solar blind ultraviolet phototransistors based on amorphous Ga <sub>2</sub> O <sub>3</sub> films grown by mist chemical vapor deposition. Nano Select, 2021, 2, 2112-2120.	3.7	12
108	Inverted Organic Photovoltaic Cells with Solution-Processed Zinc Oxide as Electron Collecting Layer. Japanese Journal of Applied Physics, 2011, 50, 082302.	1.5	11

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109	Efficient inverted polymer solar cells using low-temperature zinc oxide interlayer processed from aqueous solution. Japanese Journal of Applied Physics, 2015, 54, 042301.	1.5	11
110	The investigation of temperature dependent electrical characteristics of Au/Ni $\sqrt{2}$ -(InGa)2O3 Schottky diode. Superlattices and Microstructures, 2019, 133, 106179.	3.1	11
111	Enhancing material quality and device performance of perovskite solar cells via a facile regrowth way assisted by the DMF/Chlorobenzene mixed solution. Organic Electronics, 2019, 70, 300-305.	2.6	11
112	A Facile Way to Improve the Performance of Perovskite Solar Cells by Toluene and Diethyl Ether Mixed Anti-Solvent Engineering. Coatings, 2019, 9, 766.	2.6	11
113	Highly efficient bifacial CsPbI <sub>2</sub> solar cells with a TeO <sub>2</sub> /Ag transparent electrode and unsymmetrical carrier transport behavior. Dalton Transactions, 2020, 49, 6012-6019.	3.3	11
114	Carbon-based, all-inorganic, lead-free Ag <sub>2</sub> Bi <sub>5</sub> ruderfite solar cells with high photovoltages. Solid-State Electronics, 2021, 176, 107950.	1.4	11
115	Improving perovskite solar cell performance by compositional engineering via triple-mixed cations. Solar Energy, 2021, 220, 412-417.	6.1	11
116	Investigation of Controlled Current Matching in Polymer Tandem Solar Cells Considering Different Layer Sequences and Optical Spacer. Japanese Journal of Applied Physics, 2012, 51, 122301.	1.5	11
117	Proposal and Simulation of Ga <sub>2</sub> O <sub>3</sub> MOSFET With PN Heterojunction Structure for High-Performance E-Mode Operation. IEEE Transactions on Electron Devices, 2022, 69, 3617-3622.	3.0	11
118	Alleviating hysteresis and improving efficiency of MA <sub>1-y</sub> Fa <sub>y</sub> PbI <sub>3-x</sub> Br <sub>x</sub> perovskite solar cells by controlling the halide composition. Journal of Materials Science, 2018, 53, 16500-16510.	3.7	10
119	Dipole-templated homogeneous grain growth of CsPbI <sub>2</sub> Br films for efficient self-powered, all-inorganic photodetectors. Solar Energy, 2020, 209, 371-378.	6.1	10
120	Slow halide exchange in CsPbI <sub>2</sub> Br films for high-efficiency, carbon-based, all-inorganic perovskite solar cells. Science China Materials, 2021, 64, 2107-2117.	6.3	10
121	Reverse blocking p-GaN gate AlGa <sub>N</sub> /Ga <sub>N</sub> HEMTs with hybrid p-GaN ohmic drain. Superlattices and Microstructures, 2021, 156, 106931.	3.1	10
122	Au-Free Al <sub>0.5</sub> Ga <sub>0.5</sub> N/Al <sub>0.5</sub> Ga <sub>0.5</sub> N HEMTs on Silicon Substrate With High Reverse Blocking Voltage of 2 kV. IEEE Transactions on Electron Devices, 2021, 68, 4543-4549.	3.0	10
123	Heteroepitaxial growth of $\sqrt{2}$ -Ga <sub>2</sub> O <sub>3</sub> thin films on c-plane sapphire substrates with $\sqrt{2}$ -(Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> intermediate buffer layer by mist-CVD method. Materials Today Communications, 2021, 29, 102766.	1.9	10
124	Lateral AlGa <sub>N</sub> /Ga <sub>N</sub> Schottky Barrier Diode With Arrayed p-GaN Islands Termination. IEEE Transactions on Electron Devices, 2021, 68, 6046-6051.	3.0	10
125	Generic water-based spray-assisted growth for scalable high-efficiency carbon-electrode all-inorganic perovskite solar cells. Science, 2021, 24, 103365.	4.1	10
126	Simulation investigation of tensile strained GeSn fin photodetector with Si <sub>3</sub> N <sub>4</sub> liner stressor for extension of absorption wavelength. Optics Express, 2015, 23, 739.	3.4	9



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127	Low Temperature Aqueous Solution-Processed ZnO and Polyethylenimine Ethoxylated Cathode Buffer Bilayer for High Performance Flexible Inverted Organic Solar Cells. <i>Energies</i> , 2017, 10, 494.	3.1	9
128	A non-equilibrium Ti <sup>4+</sup> doping strategy for an efficient hematite electron transport layer in perovskite solar cells. <i>Dalton Transactions</i> , 2018, 47, 6404-6411.	3.3	9
129	Charge-Transporting-Layer-Free, Vacuum-Free, All-Inorganic CsPbI <sub>3</sub> Perovskite Solar Cells Via Dipoles-Adjusted Interface. <i>Nanomaterials</i> , 2020, 10, 1324.	4.1	9
130	Enhanced Performance of Inverted Non-Fullerene Organic Solar Cells by Using Metal Oxide Electron- and Hole-Selective Layers with Process Temperature $\leq 150$ °C. <i>Polymers</i> , 2018, 10, 725.	4.5	8
131	Performance enhancement of perovskite solar cells via material quality improvement assisted by MAI/IPA solution post-treatment. <i>Dalton Transactions</i> , 2019, 48, 5292-5298.	3.3	8
132	Epitaxial growth of $\mu$ -AlGa <sub>2</sub> O <sub>3</sub> films on sapphire substrate by PLD and the fabrication of photodetectors. <i>Optical Materials Express</i> , 2021, 11, 219.	3.0	8
133	High-Purity, Thick CsPbCl <sub>3</sub> Films toward Selective Ultraviolet-Harvesting Visibly Transparent Photovoltaics. <i>ACS Applied Energy Materials</i> , 2021, 4, 12121-12127.	5.1	8
134	Performance Improvement of a $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> -Based Solar-Blind Metal Oxide Semiconductor Field-Effect Phototransistor Using In Situ Ozone Pretreatment Technology. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 1143-1148.	3.0	8
135	Efficient Semitransparent Perovskite Solar Cells Using a Transparent Silver Electrode and Four-Terminal Perovskite/Silicon Tandem Device Exploration. <i>Journal of Nanomaterials</i> , 2018, 2018, 1-8.	2.7	7
136	Efficient Low-Cost IBC Solar Cells with a Front Floating Emitter: Structure Optimization and Passivation Layer Study. <i>Energies</i> , 2018, 11, 939.	3.1	7
137	(In <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> Photodetectors Fabricated on Sapphire at Different Temperatures by PLD. <i>IEEE Photonics Journal</i> , 2018, 10, 1-8.	2.0	7
138	Demonstration of Al <sub>0.85</sub> Ga <sub>0.15</sub> N Schottky barrier diode with $\geq 3$ kV breakdown voltage and the reverse leakage currents formation mechanism analysis. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	7
139	Enhancing Breakdown Voltage of a Ga <sub>2</sub> O <sub>3</sub> Schottky Barrier Diode with Small-Angle Beveled and High-k Oxide Field Plate. <i>ECS Journal of Solid State Science and Technology</i> , 2021, 10, 125001.	1.8	7
140	Wide-range-adjusted threshold voltages for E-mode AlGaN/GaN HEMT with a p-SnO cap gate. <i>Science China Materials</i> , 2022, 65, 795-802.	6.3	7
141	Stability of inverted organic solar cells with low-temperature ZnO buffer layer processed from aqueous solution. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 2262-2270.	1.8	6
142	Efficient flexible inverted small-bandgap organic solar cells with low-temperature zinc oxide interlayer. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 122302.	1.5	6
143	Polycrystalline diamond RF MOSFET with MoO <sub>3</sub> gate dielectric. <i>AIP Advances</i> , 2017, 7, .	1.3	6
144	Simulation study towards high performance transparent-conductive-oxide free perovskite solar cells using metal microcavity and optical coupling layer. <i>IEEE Photonics Journal</i> , 2018, , 1-1.	2.0	6



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163	Statistical Process Control for Monitoring the Particles With Excess Zero Counts in Semiconductor Manufacturing. IEEE Transactions on Semiconductor Manufacturing, 2019, 32, 93-103.	1.7	4
164	Simple and Convenient Interface Modification by Nanosized Diamond for Carbon Based All-Inorganic CsPbI <sub>2</sub> Br <sub>2</sub> Solar Cells. ACS Applied Energy Materials, 2021, 4, 5661-5667.	5.1	4
165	Î <sup>2</sup> -Ga <sub>2</sub> O <sub>3</sub> epitaxial growth on Fe-GaN template by non-vacuum mist CVD and its application in Schottky barrier diodes. AIP Advances, 2021, 11, .	1.3	4
166	Influence of Oxygen on Î <sup>2</sup> -Ga <sub>2</sub> O <sub>3</sub> Films Deposited on Sapphire Substrates by MOCVD. ECS Journal of Solid State Science and Technology, 2021, 10, 075009.	1.8	4
167	Low-temperature processed high-performance visibleâ€“transparent Ga <sub>2</sub> O <sub>3</sub> solar blind ultraviolet photodetectors with the indiumâ€“tinâ€“oxide electrode. Semiconductor Science and Technology, 2020, 35, 125031.	2.0	4
168	Enhancement-Mode Heterojunction Vertical Î <sup>2</sup> -Ga <sub>2</sub> O <sub>3</sub> MOSFET with a P-Type Oxide Current-Blocking Layer. Applied Sciences (Switzerland), 2022, 12, 1757.	2.5	4
169	Charge-selective-contact-dependent halide phase segregation in CsPbI <sub>2</sub> Br <sub>2</sub> perovskite solar cells and its correlation to device degradation. Applied Surface Science, 2022, 595, 153544.	6.1	4
170	Efficient planar heterojunction solar cell employing CH <sub>3</sub> NH <sub>3</sub> PbI <sub>2</sub> + <i>x</i> Cl <sub>1-<i>x</i></sub> mixed halide perovskite utilizing modified sequential deposition. Japanese Journal of Applied Physics, 2015, 54, 092301.	1.5	3
171	H-diamond MOS interface properties and FET characteristics with high-temperature ALD-grown HfO <sub>2</sub> dielectric. AIP Advances, 2021, 11, 035041.	1.3	3
172	Performance Improvement of All-Inorganic, Hole-Transport-Layer-Free Perovskite Solar Cells Through Dipoles-Adjustment by Polyethyleneimine Incorporating. IEEE Electron Device Letters, 2021, 42, 537-540.	3.9	3
173	Synthesis of n-type ZrO <sub>2</sub> doped Î <sup>2</sup> -Ga <sub>2</sub> O <sub>3</sub> thin films by PLD and fabrication of Schottky diode. Journal of Alloys and Compounds, 2022, 900, 163120.	5.5	3
174	Effect of oxygen plasma treatment on the performance of recessed AlGa <sub>N</sub> /Ga <sub>N</sub> Schottky barrier diodes. Applied Physics Express, 2022, 15, 016504.	2.4	3
175	Tensile-Strained Mid-Infrared GeSn Detectors Wrapped in Si &lt;sub>3</sub>N &lt;sub>4</sub> Liner Stressor: Theoretical Investigation of Impact of Device Architectures. IEEE Photonics Journal, 2015, 7, 1-8.	2.0	2
176	Stable Inverted Low-Bandgap Polymer Solar Cells with Aqueous Solution Processed Low-Temperature ZnO Buffer Layers. International Journal of Photoenergy, 2016, 2016, 1-7.	2.5	2
177	High-Performance Low-Bandgap Polymer Solar Cells With Optical Microcavity Employing Ultrathin Ag Film Electrode. IEEE Photonics Journal, 2016, 8, 1-12.	2.0	2
178	Hole-Transporting Layer Treatment of Planar Hybrid n-Si/PEDOT:PSS Solar Cells with Power Conversion Efficiency up to 14.5%. International Journal of Photoenergy, 2017, 2017, 1-7.	2.5	2
179	High performance GaN-based monolithic bidirectional switch using diode bridges. Applied Physics Express, 2021, 14, 096502.	2.4	2
180	<i>In situ</i> polymer-covered annealing strategy for high-efficiency carbon-electrode CsPbI <sub>2</sub> Br <sub>2</sub> solar cells. New Journal of Chemistry, 2021, 45, 22661-22667.	2.8	2

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181	Unidirectional p-GaN gate HEMT with composite source-drain field plates. Science China Information Sciences, 2022, 65, 1.	4.3	2
182	<i>In situ</i> , seed-free formation of a Ruddlesden-Popper perovskite Cs <sub>2</sub> PbCl <sub>2</sub> nanowires/PbI <sub>2</sub> heterojunction for a high-responsivity, self-powered photodetector. Journal of Materials Chemistry C, 2022, 10, 3538-3546.	5.5	2
183	Enhanced breakdown voltage of Si-GaN monolithic heterogeneous integrated Cascode FETs by the device structure design. Solid-State Electronics, 2022, 190, 108251.	1.4	2
184	High-Performance $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> -Based Solar-Blind Metal-Oxide Semiconductor Field-Effect Phototransistor Under Zero Gate Bias. IEEE Transactions on Electron Devices, 2022, 69, 3807-3810.	3.0	2
185	Interfacial Dipole poly(2-ethyl-2-oxazoline) Modification Triggers Simultaneous Band Alignment and Passivation for Air-Stable Perovskite Solar Cells. Polymers, 2022, 14, 2748.	4.5	2
186	Photon redistribution of 2T perovskite/Si tandem solar cells induced by the optical coupling layer for higher power conversion efficiency. Semiconductor Science and Technology, 0, , .	2.0	1
187	Wide-Bandgap All-Inorganic CsPbBr <sub>2</sub> Top Cells With MoO <sub>x</sub> /Ag/TeO <sub>2</sub> Composite Transparent Anode Towards Efficient Four-Terminal Perovskite/Si Tandem Solar Cells. IEEE Photonics Journal, 2021, 13, 1-8.	2.0	1
188	Comparison of Ga <sub>2</sub> O <sub>3</sub> Films Grown on m- and r-plane Sapphire Substrates by MOCVD. ECS Journal of Solid State Science and Technology, 2020, 9, 125008.	1.8	1
189	1.2 kV reverse blocking Schottky-drain Si-GaN monolithic integrated cascode FET. AIP Advances, 2021, 11, 105112.	1.3	1
190	Transparent Ultrathin Metal Electrode with Microcavity Configuration for Highly Efficient TCO-Free Perovskite Solar Cells. Materials, 2020, 13, 2328.	2.9	1
191	Optimization of Sacrificial Layer Etching in Single-Crystal Silicon Nano-Films Transfer Printing for Heterogeneous Integration Application. Nanomaterials, 2021, 11, 3085.	4.1	1
192	Depletion-Mode $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> MOSFETs Grown by Nonvacuum, Cost-Effective Mist-CVD Method on Fe-Doped GaN Substrates. IEEE Transactions on Electron Devices, 2022, 69, 1196-1199.	3.0	1
193	Trace Al component in $\mu\text{-(Al}_x\text{Ga}_{1-x})_2\text{O}_3$ alloy films and film-based solar-blind photodetectors. Ceramics International, 2022, 48, 22031-22038.	4.8	1
194	Heterogrowth of $\text{In}^{2+}$ -(Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> Thin Films on Sapphire Substrates. Crystal Growth and Design, 0, , .	3.0	1
195	Efficient Inverted ITO-Free Organic Solar Cells Based on Transparent Silver Electrode with Aqueous Solution-Processed ZnO Interlayer. International Journal of Photoenergy, 2017, 2017, 1-6.	2.5	0
196	All-Inorganic Two-Dimensional Ruddlesden-Popper Perovskite Cs <sub>2</sub> PbI <sub>2</sub> Cl <sub>2</sub> Nanosheet Films for Self-Powered, Visible-Blind UV Photodetectors. , 2021, , .		0