Zhiwen Jin

List of Publications by Year
in descending order

113 papers	9,176 citations	36303 51 h-index	39675 94 g-index
117 all docs	117 docs citations	117 times ranked	8264 citing authors

#	Article	IF	Citations
1	Low-Dimensional Semiconductor Materials for X-Ray Detection. , 2023, , 23-49.		1
2	Unveiling the origin of performance enhancement of photovoltaic devices by upconversion nanoparticles. Journal of Energy Chemistry, 2022, 65, 524-531.	12.9	8
3	Environmentally stable one-dimensional copper halide based ultra-flexible composite film for low-cost X-ray imaging screens. Chemical Engineering Journal, 2022, 430, 132826.	12.7	28
4	Fine coverage and uniform phase distribution in 2D (PEA)2Cs3Pb4I13 solar cells with a record efficiency beyond 15%. Nano Energy, 2022, 92, 106790.	16.0	19
5	Engineering of the alkyl chain branching point on a lactone polymer donor yields 17.81% efficiency. Journal of Materials Chemistry A, 2022, 10, 3314-3320.	10.3	17
6	Photophysics in Zeroâ€Dimensional Potassiumâ€Doped Cesium Copper Chloride Cs₃Cu₂Cl₅ Nanosheets and Its Application for Highâ€Performance Flexible Xâ€Ray Detection. Advanced Optical Materials, 2022, 10, .	7.3	49
7	Deuterated <i>N</i>,<i>N</i>-dimethylformamide (DMF-d7) as an additive to enhance the CsPbI₃ solar cell efficiency. Journal of Materials Chemistry C, 2022, 10, 1746-1753.	5.5	9
8	Ordered Element Distributed C₃N Quantum Dots Manipulated Crystallization Kinetics for 2D CsPbI₃ Solar Cells with Ultraâ€High Performance. Small, 2022, 18, e2108090.	10.0	5
9	Two-dimensional BA₂PbBr₄-based wafer for X-rays imaging application. Materials Chemistry Frontiers, 2022, 6, 1310-1316.	5.9	12
10	Cesium Lead Halide Nanocrystals based Flexible Xâ€Ray Imaging Screen and Visible Dose Rate Indication on Paper Substrate. Advanced Optical Materials, 2022, 10, .	7.3	39
11	Low-Trap-Density CsPbX₃ Film for High-Efficiency Indoor Photovoltaics. ACS Applied Materials & Interfaces, 2022, 14, 11528-11537.	8.0	13
12	Ordered Element Distributed C₃N Quantum Dots Manipulated Crystallization Kinetics for 2D CsPbI₃ Solar Cells with Ultraâ€High Performance (Small 15/2022). Small, 2022, 18, .	10.0	0
13	Guanidium-assisted crystallization engineering for highly efficient CsPbI₃solar cells. Journal of Materials Chemistry C, 2022, 10, 8234-8240.	5.5	4
14	Manipulate energy transport via fluorinated spacers towards record-efficiency 2D Dion-Jacobson CsPbI3 solar cells. Science Bulletin, 2022, 67, 1352-1361.	9.0	19
15	A Novel Multipleâ€Ring Aromatic Spacer Based 2D Ruddlesdenâ€“Popper CsPbI₃Solar Cell with Record Efficiency Beyond 16%. Advanced Functional Materials, 2022, 32, .	14.9	16
16	Metalâ€Free PAZEâ€NH₄X₃â‹…H₂O Perovskite for Flexible Transparent Xâ€ray Detection and Imaging. Angewandte Chemie, 2022, 134, .	2.0	2
17	Intermediates transformation for efficient perovskite solar cells. Journal of Energy Chemistry, 2021, 52, 102-114.	12.9	26
18	The integration structure enhances performance of perovskite solar cells. Science Bulletin, 2021, 66, 310-313.	9.0	2

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19	Strategies from small-area to scalable fabrication for perovskite solar cells. Journal of Energy Chemistry, 2021, 57, 567-586.	12.9	17
20	Interface engineering, the trump-card for CsPbX3 (XËł, Br) perovskite solar cells development. Nano Energy, 2021, 79, 105490.	16.0	22
21	Research and progress of black metastable phase CsPbI₃solar cells. Materials Chemistry Frontiers, 2021, 5, 1221-1235.	5.9	28
22	Perovskite-based tandem solar cells. Science Bulletin, 2021, 66, 621-636.	9.0	91
23	Perovskite quantum dots integrated with vertically aligned graphene toward ambipolar multifunctional photodetectors. Journal of Materials Chemistry C, 2021, 9, 609-619.	5.5	12
24	Halide perovskites for high-performance X-ray detector. Materials Today, 2021, 48, 155-175.	14.2	163
25	Origin, Influence, and Countermeasures of Defects in Perovskite Solar Cells. Small, 2021, 17, e2005495.	10.0	61
26	Suppressed light-induced phase transition of CsPbBr2I: Strategies, progress and applications in the photovoltaic field. Journal of Semiconductors, 2021, 42, 071901.	3.7	3
27	<i>N</i>â€methylâ€2â€pyrrolidone Iodide as Functional Precursor Additive for Record Efficiency 2D Ruddlesdenâ€Popper (PEA)₂(Cs)<i>_n</i>_{â^'1}Pb<i>_n</i>I₃<i>_n</i><sub>+1</su Solar Cells. Advanced Functional Materials, 2021, 31, 2106380.	14.9	29
28	Advances in perovskite quantum-dot solar cells. Journal of Energy Chemistry, 2021, 52, 351-353.	12.9	13
29	Exploring the film growth in perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 6029-6049.	10.3	20
30	A chlorinated copolymer donor demonstrates a 18.13% power conversion efficiency. Journal of Semiconductors, 2021, 42, 010501.	3.7	158
31	Self-assembled template-confined growth of ultrathin CsPbBr3 nanowires. Applied Materials Today, 2020, 18, 100449.	4.3	10
32	Over 16% efficiency from thick-film organic solar cells. Science Bulletin, 2020, 65, 1979-1982.	9.0	62
33	Beach-Chair-Shaped Energy Band Alignment for High-Performance Î2-CsPbI3 Solar Cells. Cell Reports Physical Science, 2020, 1, 100180.	5.6	28
34	Crystallization Kinetics in 2D Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2002558.	19.5	124
35	Fused-ring bislactone building blocks for polymer donors. Science Bulletin, 2020, 65, 1792-1795.	9.0	35
36	Multiple conformation locks gift polymer donor high efficiency. Nano Energy, 2020, 77, 105161.	16.0	33

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37	The <i>J</i>â€“<i>V</i> Hysteresis Behavior and Solutions in Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000586.	5.8	27
38	Halide Perovskite, a Potential Scintillator for Xâ€Ray Detection. Small Methods, 2020, 4, 2000506.	8.6	160
39	Unveiling the Effects of Intrinsic and Extrinsic Factors That Induced a Phase Transition for CsPbI3. ACS Applied Energy Materials, 2020, 3, 8184-8189.	5.1	9
40	Decreasing energy loss and optimizing band alignment for high performance CsPbI₃solar cells through guanidine hydrobromide post-treatment. Journal of Materials Chemistry A, 2020, 8, 10346-10353.	10.3	40
41	An Electrically Modulated Singleâ€Color/Dualâ€Color Imaging Photodetector. Advanced Materials, 2020, 32, e1907257.	21.0	145
42	Mn Doping of CsPbI₃ Film Towards High-Efficiency Solar Cell. ACS Applied Energy Materials, 2020, 3, 5190-5197.	5.1	56
43	Progress of the key materials for organic solar cells. Science China Chemistry, 2020, 63, 758-765.	8.2	158
44	Unveiling the Effects of Hydrolysisâ€Derived DMAI/DMAPbI<i>_x</i> Intermediate Compound on the Performance of CsPbI₃ Solar Cells. Advanced Science, 2020, 7, 1902868.	11.2	97
45	Conductive graphene-based E-textile for highly sensitive, breathable, and water-resistant multimodal gesture-distinguishable sensors. Journal of Materials Chemistry A, 2020, 8, 14778-14787.	10.3	38
46	Constructing binary electron transport layer with cascade energy level alignment for efficient CsPbI2Br solar cells. Nano Energy, 2020, 71, 104604.	16.0	56
47	Strategies for Improving the Stability of Tinâ€Based Perovskite (ASnX₃) Solar Cells. Advanced Science, 2020, 7, 1903540.	11.2	123
48	Approaches for thermodynamically stabilized CsPbI3 solar cells. Nano Energy, 2020, 71, 104634.	16.0	95
49	Toward stable and efficient Sn-containing perovskite solar cells. Science Bulletin, 2020, 65, 786-790.	9.0	21
50	Application of perovskite nanocrystals (NCs)/quantum dots (QDs) in solar cells. Nano Energy, 2020, 73, 104757.	16.0	77
51	An efficient medium-bandgap nonfullerene acceptor for organic solar cells. Journal of Materials Chemistry A, 2020, 8, 8857-8861.	10.3	17
52	HI hydrolysis-derived intermediate as booster for CsPbI₃ perovskite: from crystal structure, film fabrication to device performance. Journal of Semiconductors, 2020, 41, 051202.	3.7	19
53	Progress of the key materials for organic solar cells. Scientia Sinica Chimica, 2020, 50, 437-446.	0.4	8
54	Light Management via Tuning the Fluorineâ€Doped Tin Oxide Glass Hazeâ€Drives Highâ€Efficiency CsPbI 3 Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900602.	1.8	5

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55	CsPb(I Br1â˜’)3 solar cells. Science Bulletin, 2019, 64, 1532-1539.	9.0	114
56	Cesium Lead Mixed-Halide Perovskites for Low-Energy Loss Solar Cells with Efficiency Beyond 17%. Chemistry of Materials, 2019, 31, 6231-6238.	6.7	76
57	Ruddlesdenâ€“Popper 2D Component to Stabilize Î³â€CsPbI₃ Perovskite Phase for Stable and Efficient Photovoltaics. Advanced Energy Materials, 2019, 9, 1902529.	19.5	111
58	Interface engineering gifts CsPbI2.25Br0.75 solar cells high performance. Science Bulletin, 2019, 64, 1743-1746.	9.0	51
59	5H-dithieno[3,2-b:2â€²,3â€²-d]pyran-5-one unit yields efficient wide-bandgap polymer donors. Science Bulletin, 2019, 64, 1655-1657.	9.0	55
60	Chlorine doping for black Î³-CsPbI3 solar cells with stabilized efficiency beyond 16%. Nano Energy, 2019, 58, 175-182.	16.0	170
61	Ultrafast photonics application of graphdiyne in the optical communication region. Carbon, 2019, 149, 336-341.	10.3	153
62	Anorganische CsPbX₃â€Perowskitâ€Solarzellen: Fortschritte und Perspektiven. Angewandte Chemie, 2019, 131, 15742-15765.	2.0	20
63	Allâ€Inorganic CsPbX₃ Perovskite Solar Cells: Progress and Prospects. Angewandte Chemie - International Edition, 2019, 58, 15596-15618.	13.8	425
64	Nitrogen-doped graphene quantum dots for 80% photoluminescence quantum yield for inorganic Î³-CsPbI₃ perovskite solar cells with efficiency beyond 16%. Journal of Materials Chemistry A, 2019, 7, 5740-5747.	10.3	113
65	Optical Management with Nanoparticles for a Light Conversion Efficiency Enhancement in Inorganic Î³-CsPbI₃ Solar Cells. Nano Letters, 2019, 19, 1796-1804.	9.1	58
66	Pseudohalide (SCN^{â˜’})-doped CsPbI₃ for high-performance solar cells. Journal of Materials Chemistry C, 2019, 7, 13736-13742.	5.5	53
67	The humidity-insensitive fabrication of efficient CsPbI₃ solar cells in ambient air. Journal of Materials Chemistry A, 2019, 7, 26776-26784.	10.3	54
68	Single-crystalline perovskite wafers with a Cr blocking layer for broad and stable light detection in a harsh environment. RSC Advances, 2018, 8, 14848-14853.	3.6	9
69	Flexible perovskite solar cells based on green, continuous roll-to-roll printing technology. Journal of Energy Chemistry, 2018, 27, 971-989.	12.9	55
70	All-Ambient Processed Binary CsPbBr₃â€“CsPb₂Br₅ Perovskites with Synergistic Enhancement for High-Efficiency Csâ€“Pbâ€“Br-Based Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 7145-7154.	8.0	171
71	3Dâ€“2Dâ€“0D Interface Profiling for Record Efficiency Allâ€Inorganic CsPbBrI₂ Perovskite Solar Cells with Superior Stability. Advanced Energy Materials, 2018, 8, 1703246.	19.5	301
72	Shapeâ€•and Trapâ€Controlled Nanocrystals for Giantâ€Performance Improvement of Allâ€Inorganic Perovskite Photodetectors. Particle and Particle Systems Characterization, 2018, 35, 1700363.	2.3	24

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73	Âµâ€Graphene Crosslinked CsPbI₃ Quantum Dots for High Efficiency Solar Cells with Much Improved Stability. Advanced Energy Materials, 2018, 8, 1800007.	19.5	198
74	Interstitial Mn²⁺-Driven High-Aspect-Ratio Grain Growth for Low-Trap-Density Microcrystalline Films for Record Efficiency CsPbI₂Br Solar Cells. ACS Energy Letters, 2018, 3, 970-978.	17.4	356
75	Polymer Doping for Highâ€Efficiency Perovskite Solar Cells with Improved Moisture Stability. Advanced Energy Materials, 2018, 8, 1701757.	19.5	293
76	Graphdiyne Quantum Dots for Much Improved Stability and Efficiency of Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1701117.	3.7	76
77	Graphdiyne-WS2 2D-Nanohybrid electrocatalysts for high-performance hydrogen evolution reaction. Carbon, 2018, 129, 228-235.	10.3	124
78	Crumpled graphene prepared by a simple ultrasonic pyrolysis method for fast photodetection. Carbon, 2018, 128, 117-124.	10.3	19
79	Synergy of Hydrophobic Surface Capping and Lattice Contraction for Stable and Highâ€Efficiency Inorganic CsPbI₂Br Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800216.	5.8	68
80	Iodineâ€Optimized Interface for Inorganic CsPbI₂Br Perovskite Solar Cell to Attain High Stabilized Efficiency Exceeding 14%. Advanced Science, 2018, 5, 1801123.	11.2	90
81	All-inorganic cesium lead iodide perovskite solar cells with stabilized efficiency beyond 15%. Nature Communications, 2018, 9, 4544.	12.8	379
82	CsPbCl₃â€Driven Lowâ€Trapâ€Density Perovskite Grain Growth for >20% Solar Cell Efficiency. Advanced Science, 2018, 5, 1800474.	11.2	65
83	Graded Bandgap CsPbI2+Br1âˆ’ Perovskite Solar Cells with a Stabilized Efficiency of 14.4%. Joule, 2018, 2, 1500-1510.	24.0	307
84	Temperature-assisted crystallization for inorganic CsPbI2Br perovskite solar cells to attain high stabilized efficiency 14.81%. Nano Energy, 2018, 52, 408-415.	16.0	186
85	Graphdiyne for multilevel flexible organic resistive random access memory devices. Materials Chemistry Frontiers, 2017, 1, 1338-1341.	5.9	26
86	Stable ultra-fast broad-bandwidth photodetectors based on Î±-CsPbI₃ perovskite and NaYF₄:Yb,Er quantum dots. Nanoscale, 2017, 9, 6278-6285.	5.6	93
87	ITIC surface modification to achieve synergistic electron transport layer enhancement for planar-type perovskite solar cells with efficiency exceeding 20%. Journal of Materials Chemistry A, 2017, 5, 9514-9522.	10.3	103
88	Energy-Down-Shift CsPbCl₃:Mn Quantum Dots for Boosting the Efficiency and Stability of Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 1479-1486.	17.4	221
89	E-beam evaporated Nb2O5 as an effective electron transport layer for large flexible perovskite solar cells. Nano Energy, 2017, 36, 1-8.	16.0	215
90	Solution-processed transparent coordination polymer electrode for photovoltaic solar cells. Nano Energy, 2017, 40, 376-381.	16.0	74

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91	Cellular Architectureâ€Based Allâ€Polymer Flexible Thinâ€Film Photodetectors with High Performance and Stability in Harsh Environment. Advanced Materials Technologies, 2017, 2, 1700185.	5.8	7
92	High-performance transparent ultraviolet photodetectors based on inorganic perovskite CsPbCl₃ nanocrystals. RSC Advances, 2017, 7, 36722-36727.	3.6	90
93	Graphdiyne: An Efficient Hole Transporter for Stable Highâ€Performance Colloidal Quantum Dot Solar Cells. Advanced Functional Materials, 2016, 26, 5284-5289.	14.9	172
94	All-solution-processed PIN architecture for ultra-sensitive and ultra-flexible organic thin film photodetectors. Science China Chemistry, 2016, 59, 1258-1263.	8.2	8
95	Efficiency-Enhanced Planar Perovskite Solar Cells via an Isopropanol/Ethanol Mixed Solvent Process. ACS Applied Materials & Interfaces, 2016, 8, 23837-23843.	8.0	53
96	Bilayer Heterostructured PThTPTI/WS2 Photodetectors with High Thermal Stability in Ambient Environment. ACS Applied Materials & Interfaces, 2016, 8, 33043-33050.	8.0	25
97	Detecting trap states in planar PbS colloidal quantum dot solar cells. Scientific Reports, 2016, 6, 37106.	3.3	80
98	Enhancing performance and uniformity of CH3NH3PbI3âˆ'xClx perovskite solar cells by air-heated-oven assisted annealing under various humidities. Scientific Reports, 2016, 6, 21257.	3.3	26
99	Graphdiyne:ZnO Nanocomposites for Highâ€Performance UV Photodetectors. Advanced Materials, 2016, 28, 3697-3702.	21.0	258
100	Single crystalline indene-C₆₀ bisadduct: isolation and application in polymer solar cells. Journal of Materials Chemistry A, 2015, 3, 14991-14995.	10.3	38
101	Improving the photocurrent of a PBDTTT-CF and PCBM based organic thin film photoconductor by forming a bilayer structure. RSC Advances, 2015, 5, 84680-84684.	3.6	5
102	Realization of nonvolatile organic memory device without using semiconductor. Applied Physics Letters, 2014, 104, 023303.	3.3	10
103	Flexible high-performance ultraviolet photoconductor with zinc oxide nanorods and 8-hydroxyquinoline. Journal of Materials Chemistry C, 2014, 2, 1966.	5.5	34
104	Perylene diimides: a thickness-insensitive cathode interlayer for high performance polymer solar cells. Energy and Environmental Science, 2014, 7, 1966.	30.8	672
105	PIN architecture for ultrasensitive organic thin film photoconductors. Scientific Reports, 2014, 4, 5331.	3.3	42
106	High-performance flexible ultraviolet photoconductors based on solution-processed ultrathin ZnO/Au nanoparticle composite films. Scientific Reports, 2014, 4, 4268.	3.3	153
107	Amine group functionalized fullerene derivatives as cathode buffer layers for high performance polymer solar cells. Journal of Materials Chemistry A, 2013, 1, 9624.	10.3	69
108	High-responsivity solution-processed organicâ€"inorganic hybrid bilayer thin film photoconductors. Journal of Materials Chemistry C, 2013, 1, 7996.	5.5	19

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109	Poly(ethylene glycol) modified [60]fullerene as electron buffer layer for high-performance polymer solar cells. Applied Physics Letters, 2013, 102, .	3.3	39
110	Nonvolatile resistive memory devices based on Ag. Journal of Materials Chemistry C, 2013, 1, 3282.	5.5	7
111	Organic nonvolatile resistive memory devices based on thermally deposited Au nanoparticle. AIP Advances, 2013, 3, .	1.3	33
112	A trilayer architecture for polymer photoconductors. Applied Physics Letters, 2013, 102, .	3.3	17
113	Doubleâ€Layer Quantum Dots as Interfacial Layer to Enhance the Performance of CsPbI ₃ Solar Cells. Advanced Materials Interfaces, 0, , 2200813.	3.7	3