Ziqi Xu

List of Publications by Year
in descending order

69 papers	20,941 citations	57631 44 h-index	91712 69 g-index
70 all docs	70 docs citations	70 times ranked	16166 citing authors

#	Article	IF	Citations
1	Interface engineering of highly efficient perovskite solar cells. Science, 2014, 345, 542-546.	6.0	5,936
2	Planar Heterojunction Perovskite Solar Cells via Vapor-Assisted Solution Process. Journal of the American Chemical Society, 2014, 136, 622-625.	6.6	2,091
3	Improved air stability of perovskite solar cells via solution-processed metal oxide transport layers. Nature Nanotechnology, 2016, 11, 75-81.	15.6	1,890
4	Controllable Self-Induced Passivation of Hybrid Lead Iodide Perovskites toward High Performance Solar Cells. Nano Letters, 2014, 14, 4158-4163.	4.5	1,343
5	Under the spotlight: The organicâ€“inorganic hybrid halide perovskite for optoelectronic applications. Nano Today, 2015, 10, 355-396.	6.2	891
6	Cation and anion immobilization through chemical bonding enhancement with fluorides for stable halide perovskite solar cells. Nature Energy, 2019, 4, 408-415.	19.8	831
7	A Eu ³⁺ -Eu ²⁺ ion redox shuttle imparts operational durability to Pb-I perovskite solar cells. Science, 2019, 363, 265-270.	6.0	793
8	Moisture assisted perovskite film growth for high performance solar cells. Applied Physics Letters, 2014, 105, .	1.5	667
9	Strain engineering in perovskite solar cells and its impacts on carrier dynamics. Nature Communications, 2019, 10, 815.	5.8	528
10	Guanidinium: A Route to Enhanced Carrier Lifetime and Open-Circuit Voltage in Hybrid Perovskite Solar Cells. Nano Letters, 2016, 16, 1009-1016.	4.5	479
11	The optoelectronic role of chlorine in CH3NH3PbI3(Cl)-based perovskite solar cells. Nature Communications, 2015, 6, 7269.	5.8	404
12	Perovskite solar cells: film formation and properties. Journal of Materials Chemistry A, 2015, 3, 9032-9050.	5.2	392
13	Towards commercialization: the operational stability of perovskite solar cells. Chemical Society Reviews, 2020, 49, 8235-8286.	18.7	371
14	Impact of H₂O on organicâ€“inorganic hybrid perovskite solar cells. Energy and Environmental Science, 2017, 10, 2284-2311.	15.6	345
15	The identification and characterization of defect states in hybrid organicâ€“inorganic perovskite photovoltaics. Physical Chemistry Chemical Physics, 2015, 17, 112-116.	1.3	335
16	Chemical Reduction of Intrinsic Defects in Thicker Heterojunction Planar Perovskite Solar Cells. Advanced Materials, 2017, 29, 1606774.	11.1	318
17	The Additive Coordination Effect on Hybrids Perovskite Crystallization and Highâ€Performance Solar Cell. Advanced Materials, 2016, 28, 9862-9868.	11.1	270
18	Manipulation of facet orientation in hybrid perovskite polycrystalline films by cation cascade. Nature Communications, 2018, 9, 2793.	5.8	189

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19	Impacts of alkaline on the defects property and crystallization kinetics in perovskite solar cells. Nature Communications, 2019, 10, 1112.	5.8	185
20	The intrinsic properties of FA_(1âˆ’x)MA_xPbI₃ perovskite single crystals. Journal of Materials Chemistry A, 2017, 5, 8537-8544.	5.2	152
21	Self-Elimination of Intrinsic Defects Improves the Low-Temperature Performance of Perovskite Photovoltaics. Joule, 2020, 4, 1961-1976.	11.7	152
22	The Progress of Interface Design in Perovskiteâ€Based Solar Cells. Advanced Energy Materials, 2016, 6, 1600460.	10.2	139
23	Enhanced physical properties of pulsed laser deposited NiO films via annealing and lithium doping for improving perovskite solar cell efficiency. Journal of Materials Chemistry C, 2017, 5, 7084-7094.	2.7	134
24	CsI Preâ€Intercalation in the Inorganic Framework for Efficient and Stable FA_{1âˆ’}<i>_x</i> Cs<i>_x</i>PbI₃(Cl) Perovskite Solar Cells. Small, 2017, 13, 1700484.	5.2	121
25	Congeneric Incorporation of CsPbBr₃ Nanocrystals in a Hybrid Perovskite Heterojunction for Photovoltaic Efficiency Enhancement. ACS Energy Letters, 2018, 3, 30-38.	8.8	106
26	Synergistic Effects of Euâ€MOF on Perovskite Solar Cells with Improved Stability. Advanced Materials, 2021, 33, e2102947.	11.1	104
27	A Thermodynamically Favored Crystal Orientation in Mixed Formamidinium/Methylammonium Perovskite for Efficient Solar Cells. Advanced Materials, 2019, 31, e1900390.	11.1	101
28	Low-Temperature TiO_{<i>x</i>} Compact Layer for Planar Heterojunction Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 11076-11083.	4.0	100
29	1000 h Operational Lifetime Perovskite Solar Cells by Ambient Melting Encapsulation. Advanced Energy Materials, 2020, 10, 1902472.	10.2	98
30	Defects chemistry in high-efficiency and stable perovskite solar cells. Journal of Applied Physics, 2020, 128, .	1.1	91
31	Promoting Energy Transfer via Manipulation of Crystallization Kinetics of Quasiâ€2D Perovskites for Efficient Green Lightâ€Emitting Diodes. Advanced Materials, 2021, 33, e2102246.	11.1	88
32	Monolithic perovskite/Si tandem solar cells exceeding 22% efficiency via optimizing top cell absorber. Nano Energy, 2018, 53, 798-807.	8.2	83
33	Ion migration in halide perovskite solar cells: Mechanism, characterization, impact and suppression. Journal of Energy Chemistry, 2021, 63, 528-549.	7.1	76
34	Recent Advances in Improving Phase Stability of Perovskite Solar Cells. Small Methods, 2020, 4, 1900877.	4.6	74
35	Reducing Energy Disorder in Perovskite Solar Cells by Chelation. Journal of the American Chemical Society, 2022, 144, 5400-5410.	6.6	72
36	High-Performance Fused Ring Electron Acceptorâ€“Perovskite Hybrid. Journal of the American Chemical Society, 2018, 140, 14938-14944.	6.6	71

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37	Low-temperature-processed inorganic perovskite solar cells <i>via</i> solvent engineering with enhanced mass transport. Journal of Materials Chemistry A, 2018, 6, 23602-23609.	5.2	67
38	Tailored Au@TiO2 nanostructures for the plasmonic effect in planar perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 12034-12042.	5.2	64
39	To probe the performance of perovskite memory devices: defects property and hysteresis. Journal of Materials Chemistry C, 2017, 5, 5810-5817.	2.7	63
40	The Exploration of Carrier Behavior in the Inverted Mixed Perovskite Singleâ€Crystal Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800224.	1.9	58
41	Stacking Effects on Electronâ€"Phonon Coupling in Layered Hybrid Perovskites <i>via</i> Microstrain Manipulation. ACS Nano, 2020, 14, 5806-5817.	7.3	50
42	Precise Composition Tailoring of Mixed-Cation Hybrid Perovskites for Efficient Solar Cells by Mixture Design Methods. ACS Nano, 2017, 11, 8804-8813.	7.3	48
43	A low temperature processed fused-ring electron transport material for efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 24820-24825.	5.2	46
44	Extremely low trap-state energy level perovskite solar cells passivated using NH2-POSS with improved efficiency and stability. Journal of Materials Chemistry A, 2018, 6, 6806-6814.	5.2	45
45	Understanding the Defect Properties of Quasi-2D Halide Perovskites for Photovoltaic Applications. Journal of Physical Chemistry Letters, 2020, 11, 3521-3528.	2.1	43
46	Temporal and spatial pinhole constraints in small-molecule hole transport layers for stable and efficient perovskite photovoltaics. Journal of Materials Chemistry A, 2019, 7, 7338-7346.	5.2	41
47	Highâ€Mobility pâ€Type Organic Semiconducting Interlayer Enhancing Efficiency and Stability of Perovskite Solar Cells. Advanced Science, 2017, 4, 1700025.	5.6	36
48	Electronic Tunability and Mobility Anisotropy of Quasi-2D Perovskite Single Crystals with Varied Spacer Cations. Journal of Physical Chemistry Letters, 2020, 11, 7610-7616.	2.1	35
49	An overview of rare earth coupled lead halide perovskite and its application in photovoltaics and light emitting devices. Progress in Materials Science, 2021, 120, 100737.	16.0	35
50	Energyâ€Level Modulation in Diboronâ€Modified SnO₂ for Highâ€Efficiency Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900217.	3.1	28
51	The Role of Surface Termination in Halide Perovskites for Efficient Photocatalytic Synthesis. Angewandte Chemie - International Edition, 2020, 59, 12931-12937.	7.2	27
52	An amino-substituted perylene diimide polymer for conventional perovskite solar cells. Materials Chemistry Frontiers, 2017, 1, 2078-2084.	3.2	26
53	Thermal Management Enables More Efficient and Stable Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 3029-3036.	8.8	26
54	Reduction of intrinsic defects in hybrid perovskite films via precursor purification. Chemical Communications, 2017, 53, 10548-10551.	2.2	25

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55	Defect suppression and passivation for perovskite solar cells: from the birth to the lifetime operation. EnergyChem, 2020, 2, 100032.	10.1	22
56	Avoiding Structural Collapse to Reduce Lead Leakage in Perovskite Photovoltaics. Angewandte Chemie - International Edition, 2022, 61, .	7.2	21
57	Carrier transport composites with suppressed glass-transition for stable planar perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 14106-14113.	5.2	18
58	Interfacial-engineering enhanced performance and stability of ZnO nanowire-based perovskite solar cells. Nanotechnology, 2021, 32, 475204.	1.3	18
59	Progress in flexible perovskite solar cells with improved efficiency. Journal of Semiconductors, 2021, 42, 101605.	2.0	16
60	A-Site Cation Effect on Growth Thermodynamics and Photoconductive Properties in Ultrapure Lead Iodine Perovskite Monocrystalline Wires. ACS Applied Materials & Interfaces, 2017, 9, 25985-25994.	4.0	14
61	Amidinium additives for high-performance perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 3506-3512.	5.2	11
62	Microstructure variations induced by excess PbX₂or AX within perovskite thin films. Chemical Communications, 2017, 53, 12966-12969.	2.2	9
63	Phase transformation barrier modulation of CsPbI3 films via PbI3âˆ’ complex for efficient all-inorganic perovskite photovoltaics. Nano Energy, 2022, 99, 107388.	8.2	9
64	Avoiding Structural Collapse to Reduce Lead Leakage in Perovskite Photovoltaics. Angewandte Chemie, 0, , .	1.6	6
65	A general approach for nanoparticle composite transport materials toward efficient perovskite solar cells. Chemical Communications, 2017, 53, 11028-11031.	2.2	3
66	Repair Strategies for Perovskite Solar Cells. Chemical Research in Chinese Universities, 2021, 37, 1055-1066.	1.3	3
67	Effects of Synthesis Parameters on Silicon Nanopowders Produced by CO₂ Laserâ€Driven Pyrolysis of Silane. Chemical Vapor Deposition, 2015, 21, 133-139.	1.4	2
68	The Role of Surface Termination in Halide Perovskites for Efficient Photocatalytic Synthesis. Angewandte Chemie, 2020, 132, 13031-13037.	1.6	2
69	Collective and individual impacts of the cascade doping of alkali cations in perovskite single crystals. Journal of Materials Chemistry C, 2020, 8, 15351-15360.	2.7	1