Minchao Qin

List of Publications by Citations

81 papers	4,202 citations	38 h-index	64 g-index
84 ext. papers	5,481 ext. citations	14.7 avg, IF	5.66 L-index

#	Paper	IF	Citations
81	Efficient hole-blocking layer-free planar halide perovskite thin-film solar cells. *Nature Communications*, **2015**, 6, 6700	17.4	314
80	Orientation Regulation of Phenylethylammonium Cation Based 2D Perovskite Solar Cell with Efficiency Higher Than 11%. *Advanced Energy Materials*, **2018**, 8, 1702498	21.8	240
79	Regulating Surface Termination for Efficient Inverted Perovskite Solar Cells with Greater Than 23% Efficiency. *Journal of the American Chemical Society*, **2020**, 142, 20134-20142	16.4	185
78	Performance enhancement of perovskite solar cells with Mg-doped TiO2 compact film as the hole-blocking layer. *Applied Physics Letters*, **2015**, 106, 121104	3.4	146
77	Reducing Hysteresis and Enhancing Performance of Perovskite Solar Cells Using Low-Temperature Processed Y-Doped SnO Nanosheets as Electron Selective Layers. *Small*, **2017**, 13, 1601769	11	144
76	Modulation of Defects and Interfaces through Alkylammonium Interlayer for Efficient Inverted Perovskite Solar Cells. *Joule*, **2020**, 4, 1248-1262	27.8	143
75	MgO Nanoparticle Modified Anode for Highly Efficient SnO-Based Planar Perovskite Solar Cells. *Advanced Science*, **2017**, 4, 1700031	13.6	137
74	Enhanced Stability of Perovskite Solar Cells with Low-Temperature Hydrothermally Grown SnO2 Electron Transport Layers. *Advanced Functional Materials*, **2016**, 26, 6069-6075	15.6	128
73	Fullerene derivative anchored SnO2 for high-performance perovskite solar cells. *Energy and Environmental Science*, **2018**, 11, 3463-3471	35.4	123
72	Performance enhancement of high temperature SnO2-based planar perovskite solar cells: electrical characterization and understanding of the mechanism. *Journal of Materials Chemistry A*, **2016**, 4, 8374-8383	13	122
71	Thiazole Imide-Based All-Acceptor Homopolymer: Achieving High-Performance Unipolar Electron Transport in Organic Thin-Film Transistors. *Advanced Materials*, **2018**, 30, 1705745	24	121
70	Fully High-Temperature-Processed SnO2 as Blocking Layer and Scaffold for Efficient, Stable, and Hysteresis-Free Mesoporous Perovskite Solar Cells. *Advanced Functional Materials*, **2018**, 28, 1706276	15.6	111
69	Perovskite Solar Cells Based on Low-Temperature Processed Indium Oxide Electron Selective Layers. *ACS Applied Materials & Interfaces*, **2016**, 8, 8460-6	9.5	100
68	Low-temperature solution-processed NiOx films for air-stable perovskite solar cells. *Journal of Materials Chemistry A*, **2017**, 5, 11071-11077	13	88
67	Highly Efficient Sn/Pb Binary Perovskite Solar Cell via Precursor Engineering: A Two-Step Fabrication Process. *Advanced Functional Materials*, **2019**, 29, 1807024	15.6	88
66	The Second Spacer Cation Assisted Growth of a 2D Perovskite Film with Oriented Large Grain for Highly Efficient and Stable Solar Cells. *Angewandte Chemie - International Edition*, **2019**, 58, 9409-9413	16.4	84
65	Manipulating the Mixed-Perovskite Crystallization Pathway Unveiled by In Situ GIWAXS. *Advanced Materials*, **2019**, 31, e1901284	24	84

64	Stable and Efficient 3D-2D Perovskite-Perovskite Planar Heterojunction Solar Cell without Organic Hole Transport Layer. *Joule*, **2018**, 2, 2706-2721	27.8	82
63	Fused-Ring Electron Acceptor ITIC-Th: A Novel Stabilizer for Halide Perovskite Precursor Solution. *Advanced Energy Materials*, **2018**, 8, 1703399	21.8	80
62	Composition-Tuned Wide Bandgap Perovskites: From Grain Engineering to Stability and Performance Improvement. *Advanced Functional Materials*, **2018**, 28, 1803130	15.6	78
61	Tailoring vertical phase distribution of quasi-two-dimensional perovskite films via surface modification of hole-transporting layer. *Nature Communications*, **2019**, 10, 878	17.4	76
60	Stable and low-photovoltage-loss perovskite solar cells by multifunctional passivation. *Nature Photonics*, **2021**, 15, 681-689	33.9	72
59	Zwitterionic-Surfactant-Assisted Room-Temperature Coating of Efficient Perovskite Solar Cells. *Joule*, **2020**, 4, 2404-2425	27.8	65
58	Ag-Doped Halide Perovskite Nanocrystals for Tunable Band Structure and Efficient Charge Transport. *ACS Energy Letters*, **2019**, 4, 534-541	20.1	63
57	Effects of Alkyl Chain Length on Crystal Growth and Oxidation Process of Two-Dimensional Tin Halide Perovskites. *ACS Energy Letters*, **2020**, 5, 1422-1429	20.1	62
56	All-Perovskite Emission Architecture for White Light-Emitting Diodes. *ACS Nano*, **2018**, 12, 10486-10492	16.7	61
55	Room-Temperature Meniscus Coating of >20% Perovskite Solar Cells: A Film Formation Mechanism Investigation. *Advanced Functional Materials*, **2019**, 29, 1900092	15.6	59
54	Imide-Functionalized Thiazole-Based Polymer Semiconductors: Synthesis, Structure–Property Correlations, Charge Carrier Polarity, and Thin-Film Transistor Performance. *Chemistry of Materials*, **2018**, 30, 7988-8001	9.6	59
53	Crystallinity Preservation and Ion Migration Suppression through Dual Ion Exchange Strategy for Stable Mixed Perovskite Solar Cells. *Advanced Energy Materials*, **2017**, 7, 1700118	21.8	58
52	Unveiling the additive-assisted oriented growth of perovskite crystallite for high performance light-emitting diodes. *Nature Communications*, **2021**, 12, 5081	17.4	57
51	Precise Control of Perovskite Crystallization Kinetics via Sequential A-Site Doping. *Advanced Materials*, **2020**, 32, e2004630	24	56
50	Vertical Orientated Dion–Jacobson Quasi-2D Perovskite Film with Improved Photovoltaic Performance and Stability. *Small Methods*, **2020**, 4, 1900831	12.8	52
49	General Nondestructive Passivation by 4-Fluoroaniline for Perovskite Solar Cells with Improved Performance and Stability. *Small*, **2018**, 14, e1803350	11	52
48	High-Performance Fused Ring Electron Acceptor-Perovskite Hybrid. *Journal of the American Chemical Society*, **2018**, 140, 14938-14944	16.4	51
47	Interlayer Interaction Enhancement in Ruddlesden–Popper Perovskite Solar Cells toward High Efficiency and Phase Stability. *ACS Energy Letters*, **2019**, 4, 1025-1033	20.1	50

46	Intralayer A-Site Compositional Engineering of Ruddlesden□Popper Perovskites for Thermostable and Efficient Solar Cells. *ACS Energy Letters*, **2019**, 4, 1216-1224	20.1	41
45	Guanidinium doping enabled low-temperature fabrication of high-efficiency all-inorganic CsPbI2Br perovskite solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 27640-27647	13	41
44	Efficient and bright warm-white electroluminescence from lead-free metal halides. *Nature Communications*, **2021**, 12, 1421	17.4	38
43	Highly Efficient Guanidinium-Based Quasi 2D Perovskite Solar Cells via a Two-Step Post-Treatment Process. *Small Methods*, **2019**, 3, 1900375	12.8	35
42	Multifunctional Crosslinking-Enabled Strain-Regulating Crystallization for Stable, Efficient □FAPbI -Based Perovskite Solar Cells. *Advanced Materials*, **2021**, 33, e2008487	24	34
41	Additive-Assisted Hot-Casting Free Fabrication of Dion□Jacobson 2D Perovskite Solar Cell with Efficiency Beyond 16%. *Solar Rrl*, **2020**, 4, 2000087	7.1	32
40	Interfacial engineering enables high efficiency with a high open-circuit voltage above 1.23 V in 2D perovskite solar cells. *Journal of Materials Chemistry A*, **2018**, 6, 18010-18017	13	32
39	Understanding of Imine Substitution in Wide-Bandgap Polymer Donor-Induced Efficiency Enhancement in All-Polymer Solar Cells. *Chemistry of Materials*, **2019**, 31, 8533-8542	9.6	30
38	Two-dimensional inverted planar perovskite solar cells with efficiency over 15% via solvent and interface engineering. *Journal of Materials Chemistry A*, **2019**, 7, 18980-18986	13	29
37	Constructing highly efficient all-inorganic perovskite solar cells with efficiency exceeding 17% by using dopant-free polymeric electron-donor materials. *Nano Energy*, **2020**, 75, 104933	17.1	28
36	Modifying Surface Termination of CsPbI3 Grain Boundaries by 2D Perovskite Layer for Efficient and Stable Photovoltaics. *Advanced Functional Materials*, **2021**, 31, 2009515	15.6	24
35	A Systematic Review of Metal Halide Perovskite Crystallization and Film Formation Mechanism Unveiled by In Situ GIWAXS. *Advanced Materials*, **2021**, e2105290	24	21
34	Charge carrier transport and nanomorphology control for efficient non-fullerene organic solar cells. *Materials Today Energy*, **2019**, 12, 398-407	7	20
33	A Nonfullerene Acceptor with Alkylthio- and Dimethoxy-Thiophene-Groups Yielding High-Performance Ternary Organic Solar Cells. *Solar Rrl*, **2020**, 4, 1900353	7.1	20
32	Solvation effect in precursor solution enables over 16% efficiency in thick 2D perovskite solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 19423-19429	13	19
31	Unraveling the Impact of Halide Mixing on Crystallization and Phase Evolution in CsPbX3 Perovskite Solar Cells. *Matter*, **2021**, 4, 313-327	12.7	18
30	Green perovskite light-emitting diodes with simultaneous high luminance and quantum efficiency through charge injection engineering. *Science Bulletin*, **2020**, 65, 1832-1839	10.6	15
29	Passivating Charged Defects with 1,6-Hexamethylenediamine To Realize Efficient and Stable Tin-Based Perovskite Solar Cells. *Journal of Physical Chemistry C*, **2020**, 124, 16289-16299	3.8	15

28	Single-phase alkylammonium cesium lead iodide quasi-2D perovskites for color-tunable and spectrum-stable red LEDs. *Nanoscale*, **2019**, 11, 16907-16918	7.7	14
27	Highly oriented MAPbI3 crystals for efficient hole-conductor-free printable mesoscopic perovskite solar cells. *Fundamental Research*, **2021**,		12
26	Bulk Heterojunction Quasi-Two-Dimensional Perovskite Solar Cell with 1.18 V High Photovoltage. *ACS Applied Materials & Interfaces*, **2019**, 11, 2935-2943	9.5	12
25	The Second Spacer Cation Assisted Growth of a 2D Perovskite Film with Oriented Large Grain for Highly Efficient and Stable Solar Cells. *Angewandte Chemie*, **2019**, 131, 9509-9513	3.6	11
24	Improved Crystallization and Stability of Mixed-Cation Tin Iodide for Lead-Free Perovskite Solar Cells. *ACS Applied Energy Materials*, **2020**, 3, 5415-5426	6.1	11
23	Bottom-Up Quasi-Epitaxial Growth of Hybrid Perovskite from Solution Process-Achieving High-Efficiency Solar Cells via Template -Guided Crystallization. *Advanced Materials*, **2021**, 33, e2100009	24	11
22	Perovskite Quantum Wells Formation Mechanism for Stable Efficient Perovskite Photovoltaics-A Real-Time Phase-Transition Study. *Advanced Materials*, **2021**, 33, e2006238	24	11
21	Manipulating Crystallization Kinetics in High-Performance Blade-Coated Perovskite Solar Cells via Cosolvent-Assisted Phase Transition.. *Advanced Materials*, **2022**, e2200276	24	11
20	Thiazolothienyl imide-based wide bandgap copolymers for efficient polymer solar cells. *Journal of Materials Chemistry C*, **2019**, 7, 11142-11151	7.1	10
19	Room-temperature multiple ligands-tailored SnO quantum dots endow in situ dual-interface binding for upscaling efficient perovskite photovoltaics with high V. *Light: Science and Applications*, **2021**, 10, 239	16.7	10
18	Oriented Perovskite Crystal towards Efficient Charge Transport in FASnI3 Perovskite Solar Cells. *Solar Rrl*, **2020**, 4, 2000153	7.1	10
17	Size Modulation and Heterovalent Doping Facilitated Hybrid Organic and Perovskite Quantum Dot Bulk Heterojunction Solar Cells. *ACS Applied Energy Materials*, **2020**, 3, 11359-11367	6.1	10
16	Control over Light Soaking Effect in All-Inorganic Perovskite Solar Cells. *Advanced Functional Materials*, **2021**, 31, 2101287	15.6	10
15	Crystallization kinetics modulation and defect suppression of all-inorganic CsPbX3 perovskite films. *Energy and Environmental Science*,	35.4	9
14	Cascade Type-II 2D/3D Perovskite Heterojunctions for Enhanced Stability and Photovoltaic Efficiency. *Solar Rrl*, **2020**, 4, 2000282	7.1	9
13	High-Quality MAPbBr Cuboid Film with Promising Optoelectronic Properties Prepared by a Hot Methylamine Precursor Approach. *ACS Applied Materials & Interfaces*, **2020**, 12, 24498-24504	9.5	8
12	Uncovering the out-of-plane nanomorphology of organic photovoltaic bulk heterojunction by GTSAXS. *Nature Communications*, **2021**, 12, 6226	17.4	8
11	Spectroscopic Study of Charge Transport at Organic Solid Water Interface. *Chemistry of Materials*, **2018**, 30, 5422-5428	9.6	7

10	Bifunctional Effects of Trichloro(octyl)silane Modification on the Performance and Stability of a Perovskite Solar Cell via Microscopic Characterization Techniques. *ACS Applied Energy Materials*, **2020**, 3, 3302-3309	6.1	6
9	Trifluoromethylphenylacetic Acid as In Situ Accelerant of Ostwald Ripening for Stable and Efficient Perovskite Solar Cells. *Solar Rrl*, **2021**, 5, 2100040	7.1	6
8	The compatibility of methylammonium and formamidinium in mixed cation perovskite: the optoelectronic and stability properties. *Nanotechnology*, **2021**, 32, 075406	3.4	5
7	Enhanced Electrochemical Stability by Alkyldiammonium in Dion□acobson Perovskite toward Ultrastable Light-Emitting Diodes. *Advanced Optical Materials*, **2021**, 9, 2100243	8.1	5
6	Additive-Assisted Hot-Casting Free Fabrication of Dion□acobson 2D Perovskite Solar Cell with Efficiency Beyond 16%. *Solar Rrl*, **2020**, 4, 2070074	7.1	3
5	Organic Thin-Film Transistors: Thiazole Imide-Based All-Acceptor Homopolymer: Achieving High-Performance Unipolar Electron Transport in Organic Thin-Film Transistors (Adv. Mater. 10/2018). *Advanced Materials*, **2018**, 30, 1870071	24	3
4	Unidirectionally aligned bright quantum rods films, using T-shape ligands, for LCD application. *Nano Research*,1	10	2
3	Suppressed Phase Segregation in High-Humidity-Processed Dion□acobson Perovskite Solar Cells Toward High Efficiency and Stability. *Solar Rrl*, **2021**, 5, 2100555	7.1	2
2	Experimental Observation of Ultrahigh Mobility Anisotropy of Organic Semiconductors in the Two-Dimensional Limit. *ACS Applied Electronic Materials*, **2020**, 2, 2888-2894	4	1
1	Doping and orientation regulation of p-type Cu:CdS1□e /Pt thin film photocathodes for enhanced photoelectrochemical water splitting. *Applied Surface Science*, **2021**, 566, 150723	6.7	0