

# Minchao Qin

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Manipulating Crystallization Kinetics in High-Performance Blade-Coated Perovskite Solar Cells via Cosolvent-Assisted Phase Transition.. <i>Advanced Materials</i> , <b>2022</b> , e2200276	24	11
80	Room-temperature multiple ligands-tailored SnO quantum dots endow in situ dual-interface binding for upscaling efficient perovskite photovoltaics with high V. <i>Light: Science and Applications</i> , <b>2021</b> , 10, 239	16.7	10
79	A Systematic Review of Metal Halide Perovskite Crystallization and Film Formation Mechanism Unveiled by In Situ GIWAXS. <i>Advanced Materials</i> , <b>2021</b> , e2105290	24	21
78	Highly oriented MAPbI <sub>3</sub> crystals for efficient hole-conductor-free printable mesoscopic perovskite solar cells. <i>Fundamental Research</i> , <b>2021</b> ,		12
77	Uncovering the out-of-plane nanomorphology of organic photovoltaic bulk heterojunction by GTSAXS. <i>Nature Communications</i> , <b>2021</b> , 12, 6226	17.4	8
76	The compatibility of methylammonium and formamidinium in mixed cation perovskite: the optoelectronic and stability properties. <i>Nanotechnology</i> , <b>2021</b> , 32, 075406	3.4	5
75	Trifluoromethylphenylacetic Acid as In Situ Accelerant of Ostwald Ripening for Stable and Efficient Perovskite Solar Cells. <i>Solar Rrl</i> , <b>2021</b> , 5, 2100040	7.1	6
74	Efficient and bright warm-white electroluminescence from lead-free metal halides. <i>Nature Communications</i> , <b>2021</b> , 12, 1421	17.4	38
73	Control over Light Soaking Effect in All-Inorganic Perovskite Solar Cells. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2101287	15.6	10
72	Bottom-Up Quasi-Epitaxial Growth of Hybrid Perovskite from Solution Process-Achieving High-Efficiency Solar Cells via Template -Guided Crystallization. <i>Advanced Materials</i> , <b>2021</b> , 33, e2100009	24	11
71	Enhanced Electrochemical Stability by Alkyldiammonium in Dion̄Jacobson Perovskite toward Ultrastable Light-Emitting Diodes. <i>Advanced Optical Materials</i> , <b>2021</b> , 9, 2100243	8.1	5
70	Multifunctional Crosslinking-Enabled Strain-Regulating Crystallization for Stable, Efficient $\text{FAPbI}_3$ -Based Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2021</b> , 33, e2008487	24	34
69	Unraveling the Impact of Halide Mixing on Crystallization and Phase Evolution in CsPbX <sub>3</sub> Perovskite Solar Cells. <i>Matter</i> , <b>2021</b> , 4, 313-327	12.7	18
68	Modifying Surface Termination of CsPbI <sub>3</sub> Grain Boundaries by 2D Perovskite Layer for Efficient and Stable Photovoltaics. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2009515	15.6	24
67	Stable and low-photovoltage-loss perovskite solar cells by multifunctional passivation. <i>Nature Photonics</i> , <b>2021</b> , 15, 681-689	33.9	72
66	Unveiling the additive-assisted oriented growth of perovskite crystallite for high performance light-emitting diodes. <i>Nature Communications</i> , <b>2021</b> , 12, 5081	17.4	57
65	Suppressed Phase Segregation in High-Humidity-Processed Dion̄Jacobson Perovskite Solar Cells Toward High Efficiency and Stability. <i>Solar Rrl</i> , <b>2021</b> , 5, 2100555	7.1	2

64	Doping and orientation regulation of p-type Cu:CdS1Be /Pt thin film photocathodes for enhanced photoelectrochemical water splitting. <i>Applied Surface Science</i> , <b>2021</b> , 566, 150723	6.7	0
63	Perovskite Quantum Wells Formation Mechanism for Stable Efficient Perovskite Photovoltaics-A Real-Time Phase-Transition Study. <i>Advanced Materials</i> , <b>2021</b> , 33, e2006238	24	11
62	Improved Crystallization and Stability of Mixed-Cation Tin Iodide for Lead-Free Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 5415-5426	6.1	11
61	High-Quality MAPbBr Cuboid Film with Promising Optoelectronic Properties Prepared by a Hot Methylamine Precursor Approach. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 24498-24504	9.5	8
60	Modulation of Defects and Interfaces through Alkylammonium Interlayer for Efficient Inverted Perovskite Solar Cells. <i>Joule</i> , <b>2020</b> , 4, 1248-1262	27.8	143
59	Green perovskite light-emitting diodes with simultaneous high luminance and quantum efficiency through charge injection engineering. <i>Science Bulletin</i> , <b>2020</b> , 65, 1832-1839	10.6	15
58	Bifunctional Effects of Trichloro(octyl)silane Modification on the Performance and Stability of a Perovskite Solar Cell via Microscopic Characterization Techniques. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 3302-3309	6.1	6
57	Passivating Charged Defects with 1,6-Hexamethylenediamine To Realize Efficient and Stable Tin-Based Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 16289-16299	3.8	15
56	Additive-Assisted Hot-Casting Free Fabrication of DionJacobson 2D Perovskite Solar Cell with Efficiency Beyond 16%. <i>Solar Rrl</i> , <b>2020</b> , 4, 2070074	7.1	3
55	Effects of Alkyl Chain Length on Crystal Growth and Oxidation Process of Two-Dimensional Tin Halide Perovskites. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 1422-1429	20.1	62
54	Additive-Assisted Hot-Casting Free Fabrication of DionJacobson 2D Perovskite Solar Cell with Efficiency Beyond 16%. <i>Solar Rrl</i> , <b>2020</b> , 4, 2000087	7.1	32
53	Constructing highly efficient all-inorganic perovskite solar cells with efficiency exceeding 17% by using dopant-free polymeric electron-donor materials. <i>Nano Energy</i> , <b>2020</b> , 75, 104933	17.1	28
52	Vertical Orientated DionJacobson Quasi-2D Perovskite Film with Improved Photovoltaic Performance and Stability. <i>Small Methods</i> , <b>2020</b> , 4, 1900831	12.8	52
51	Zwitterionic-Surfactant-Assisted Room-Temperature Coating of Efficient Perovskite Solar Cells. <i>Joule</i> , <b>2020</b> , 4, 2404-2425	27.8	65
50	Regulating Surface Termination for Efficient Inverted Perovskite Solar Cells with Greater Than 23% Efficiency. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 20134-20142	16.4	185
49	Experimental Observation of Ultrahigh Mobility Anisotropy of Organic Semiconductors in the Two-Dimensional Limit. <i>ACS Applied Electronic Materials</i> , <b>2020</b> , 2, 2888-2894	4	1
48	Cascade Type-II 2D/3D Perovskite Heterojunctions for Enhanced Stability and Photovoltaic Efficiency. <i>Solar Rrl</i> , <b>2020</b> , 4, 2000282	7.1	9
47	Oriented Perovskite Crystal towards Efficient Charge Transport in FASnI3 Perovskite Solar Cells. <i>Solar Rrl</i> , <b>2020</b> , 4, 2000153	7.1	10

46	Size Modulation and Heterovalent Doping Facilitated Hybrid Organic and Perovskite Quantum Dot Bulk Heterojunction Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 11359-11367	6.1	10
45	Precise Control of Perovskite Crystallization Kinetics via Sequential A-Site Doping. <i>Advanced Materials</i> , <b>2020</b> , 32, e2004630	24	56
44	A Nonfullerene Acceptor with Alkylthio- and Dimethoxy-Thiophene-Groups Yielding High-Performance Ternary Organic Solar Cells. <i>Solar Rrl</i> , <b>2020</b> , 4, 1900353	7.1	20
43	Understanding of Imine Substitution in Wide-Bandgap Polymer Donor-Induced Efficiency Enhancement in All-Polymer Solar Cells. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 8533-8542	9.6	30
42	Ag-Doped Halide Perovskite Nanocrystals for Tunable Band Structure and Efficient Charge Transport. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 534-541	20.1	63
41	The Second Spacer Cation Assisted Growth of a 2D Perovskite Film with Oriented Large Grain for Highly Efficient and Stable Solar Cells. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 9409-9413	16.4	84
40	The Second Spacer Cation Assisted Growth of a 2D Perovskite Film with Oriented Large Grain for Highly Efficient and Stable Solar Cells. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 9509-9513	3.6	11
39	Charge carrier transport and nanomorphology control for efficient non-fullerene organic solar cells. <i>Materials Today Energy</i> , <b>2019</b> , 12, 398-407	7	20
38	Intralayer A-Site Compositional Engineering of Ruddlesden-Popper Perovskites for Thermostable and Efficient Solar Cells. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 1216-1224	20.1	41
37	Manipulating the Mixed-Perovskite Crystallization Pathway Unveiled by In Situ GIWAXS. <i>Advanced Materials</i> , <b>2019</b> , 31, e1901284	24	84
36	Room-Temperature Meniscus Coating of >20% Perovskite Solar Cells: A Film Formation Mechanism Investigation. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1900092	15.6	59
35	Interlayer Interaction Enhancement in Ruddlesden-Popper Perovskite Solar Cells toward High Efficiency and Phase Stability. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 1025-1033	20.1	50
34	Thiazolothienyl imide-based wide bandgap copolymers for efficient polymer solar cells. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 11142-11151	7.1	10
33	Single-phase alkylammonium cesium lead iodide quasi-2D perovskites for color-tunable and spectrum-stable red LEDs. <i>Nanoscale</i> , <b>2019</b> , 11, 16907-16918	7.7	14
32	Highly Efficient Guanidinium-Based Quasi 2D Perovskite Solar Cells via a Two-Step Post-Treatment Process. <i>Small Methods</i> , <b>2019</b> , 3, 1900375	12.8	35
31	Two-dimensional inverted planar perovskite solar cells with efficiency over 15% via solvent and interface engineering. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 18980-18986	13	29
30	Solvation effect in precursor solution enables over 16% efficiency in thick 2D perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 19423-19429	13	19
29	Tailoring vertical phase distribution of quasi-two-dimensional perovskite films via surface modification of hole-transporting layer. <i>Nature Communications</i> , <b>2019</b> , 10, 878	17.4	76

28	Guanidinium doping enabled low-temperature fabrication of high-efficiency all-inorganic CsPbI <sub>2</sub> Br perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 27640-27647	13	41
27	Bulk Heterojunction Quasi-Two-Dimensional Perovskite Solar Cell with 1.18 V High Photovoltage. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 2935-2943	9.5	12
26	Highly Efficient Sn/Pb Binary Perovskite Solar Cell via Precursor Engineering: A Two-Step Fabrication Process. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1807024	15.6	88
25	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). <i>Advanced Materials</i> , <b>2018</b> , 30, 1870071	24	3
24	Orientation Regulation of Phenylethylammonium Cation Based 2D Perovskite Solar Cell with Efficiency Higher Than 11%. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1702498	21.8	240
23	Thiazole Imide-Based All-Acceptor Homopolymer: Achieving High-Performance Unipolar Electron Transport in Organic Thin-Film Transistors. <i>Advanced Materials</i> , <b>2018</b> , 30, 1705745	24	121
22	Fully High-Temperature-Processed SnO <sub>2</sub> as Blocking Layer and Scaffold for Efficient, Stable, and Hysteresis-Free Mesoporous Perovskite Solar Cells. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1706276	15.6	111
21	Fused-Ring Electron Acceptor ITIC-Th: A Novel Stabilizer for Halide Perovskite Precursor Solution. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1703399	21.8	80
20	Composition-Tuned Wide Bandgap Perovskites: From Grain Engineering to Stability and Performance Improvement. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1803130	15.6	78
19	Spectroscopic Study of Charge Transport at Organic Solid/Water Interface. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 5422-5428	9.6	7
18	Interfacial engineering enables high efficiency with a high open-circuit voltage above 1.23 V in 2D perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 18010-18017	13	32
17	General Nondestructive Passivation by 4-Fluoroaniline for Perovskite Solar Cells with Improved Performance and Stability. <i>Small</i> , <b>2018</b> , 14, e1803350	11	52
16	Fullerene derivative anchored SnO <sub>2</sub> for high-performance perovskite solar cells. <i>Energy and Environmental Science</i> , <b>2018</b> , 11, 3463-3471	35.4	123
15	Imide-Functionalized Thiazole-Based Polymer Semiconductors: Synthesis, Structure-Property Correlations, Charge Carrier Polarity, and Thin-Film Transistor Performance. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 7988-8001	9.6	59
14	Stable and Efficient 3D-2D Perovskite-Perovskite Planar Heterojunction Solar Cell without Organic Hole Transport Layer. <i>Joule</i> , <b>2018</b> , 2, 2706-2721	27.8	82
13	High-Performance Fused Ring Electron Acceptor-Perovskite Hybrid. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 14938-14944	16.4	51
12	All-Perovskite Emission Architecture for White Light-Emitting Diodes. <i>ACS Nano</i> , <b>2018</b> , 12, 10486-10492	16.7	61
11	MgO Nanoparticle Modified Anode for Highly Efficient SnO-Based Planar Perovskite Solar Cells. <i>Advanced Science</i> , <b>2017</b> , 4, 1700031	13.6	137

10	Crystallinity Preservation and Ion Migration Suppression through Dual Ion Exchange Strategy for Stable Mixed Perovskite Solar Cells. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700118	21.8	58
9	Low-temperature solution-processed NiOx films for air-stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 11071-11077	13	88
8	Reducing Hysteresis and Enhancing Performance of Perovskite Solar Cells Using Low-Temperature Processed Y-Doped SnO Nanosheets as Electron Selective Layers. <i>Small</i> , <b>2017</b> , 13, 1601769	11	144
7	Perovskite Solar Cells Based on Low-Temperature Processed Indium Oxide Electron Selective Layers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 8460-6	9.5	100
6	Enhanced Stability of Perovskite Solar Cells with Low-Temperature Hydrothermally Grown SnO2 Electron Transport Layers. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 6069-6075	15.6	128
5	Performance enhancement of high temperature SnO2-based planar perovskite solar cells: electrical characterization and understanding of the mechanism. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 8374-8383	12	122
4	Efficient hole-blocking layer-free planar halide perovskite thin-film solar cells. <i>Nature Communications</i> , <b>2015</b> , 6, 6700	17.4	314
3	Performance enhancement of perovskite solar cells with Mg-doped TiO2 compact film as the hole-blocking layer. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 121104	3.4	146
2	Unidirectionally aligned bright quantum rods films, using T-shape ligands, for LCD application. <i>Nano Research</i> , 1	10	2
1	Crystallization kinetics modulation and defect suppression of all-inorganic CsPbX3 perovskite films. <i>Energy and Environmental Science</i> ,	35.4	9