

# Meng Zhang

## List of Publications by Year in descending order

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72  
papers

4,646  
citations

136950

32  
h-index

98798

67  
g-index

73  
all docs

73  
docs citations

73  
times ranked

6182  
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent advances on interface engineering of perovskite solar cells. <i>Nano Research</i> , 2022, 15, 85-103.	10.4	59
2	Potassium tetrafluoroborate-induced defect tolerance enables efficient wide-bandgap perovskite solar cells. <i>Journal of Colloid and Interface Science</i> , 2022, 605, 710-717.	9.4	20
3	Excess PbI <sub>2</sub> evolution for triple-cation based perovskite solar cells with 21.9% efficiency. <i>Journal of Energy Chemistry</i> , 2022, 66, 152-160.	12.9	43
4	Small molecule interfacial cross-linker for highly efficient two-dimensional perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2022, 68, 35-41.	12.9	10
5	Low-pressure accessible gas-quenching for absolute methylammonium-free perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2105-2112.	10.3	13
6	Unraveling the Mechanism of Ion-Migration Suppression by Interstitial Doping for Operationally Stable CsPbI <sub>2</sub> Br Perovskite Solar Cells. <i>Chemistry of Materials</i> , 2022, 34, 1010-1019.	6.7	11
7	PTAA as Efficient Hole Transport Materials in Perovskite Solar Cells: A Review. <i>Solar Rrl</i> , 2022, 6, .	5.8	65
8	Heterogeneous lead iodide obtains perovskite solar cells with efficiency of 24.27%. <i>Chemical Engineering Journal</i> , 2022, 448, 137676.	12.7	29
9	Integrating Low-Cost Earth-Abundant Co-Catalysts with Encapsulated Perovskite Solar Cells for Efficient and Stable Overall Solar Water Splitting. <i>Advanced Functional Materials</i> , 2021, 31, 2008245.	14.9	43
10	Ultra-smooth CsPbI <sub>2</sub> Br film via programmable crystallization process for high-efficiency inorganic perovskite solar cells. <i>Journal of Materials Science and Technology</i> , 2021, 66, 150-156.	10.7	12
11	Phosphorescent [3 + 2 + 1] coordinated Ir(III) cyano complexes for achieving efficient phosphors and their application in OLED devices. <i>Chemical Science</i> , 2021, 12, 10165-10178.	7.4	32
12	Elucidating Mechanisms behind Ambient Storage-Induced Efficiency Improvements in Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2021, 6, 925-933.	17.4	52
13	Remanent solvent management engineering of perovskite films for PEDOT: PSS-based inverted solar cells. <i>Solar Energy</i> , 2021, 216, 530-536.	6.1	6
14	Efficient carrier transport via dual-function interfacial engineering using cesium iodide for high-performance perovskite solar cells based on NiOx hole transporting materials. <i>Nano Research</i> , 2021, 14, 3864-3872.	10.4	14
15	A Review on Gas-Quenching Technique for Efficient Perovskite Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100386.	5.8	28
16	Multifunctional quantum dot materials for perovskite solar cells: Charge transport, efficiency and stability. <i>Nano Today</i> , 2021, 40, 101286.	11.9	16
17	Pristine inorganic nickel oxide as desirable hole transporting material for efficient quasi two-dimensional perovskite solar cells. <i>Journal of Power Sources</i> , 2021, 512, 230452.	7.8	9
18	Novel spiro[fluorene-9,9'-xanthene]-based hole transport layers for red and green PHOLED devices with high efficiency and low efficiency roll-off. <i>Journal of Materials Chemistry C</i> , 2021, 9, 3247-3256.	5.5	12

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19	A High-Performance Photodetector Based on 1D Perovskite Radial Heterostructure. <i>Advanced Optical Materials</i> , 2021, 9, 2101504.	7.3	8
20	Baseplate Temperature-Dependent Vertical Composition Gradient in Pseudo-Bilayer Films for Printing Non-Fullerene Organic Solar Cells. <i>Advanced Energy Materials</i> , 2021, 11, 2102135.	19.5	33
21	A Review on Gas-Quenching Technique for Efficient Perovskite Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2170105.	5.8	2
22	A series of uranium-organic frameworks: Crucial role of the protonation ability of auxiliary ligands. <i>Inorganic Chemistry Communication</i> , 2020, 111, 107628.	3.9	11
23	Understanding how chlorine additive in a dynamic sequential process affects FA <sub>0.3</sub> MA <sub>0.7</sub> PbI <sub>3</sub> perovskite film growth for solar cell application. <i>Materials Today Energy</i> , 2020, 18, 100551.	4.7	5
24	Oxidization-Free Spiro-OMeTAD Hole-Transporting Layer for Efficient CsPbI <sub>2</sub> Br Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 52779-52787.	8.0	23
25	Rising from the Ashes: Gaseous Therapy for Robust and Large-Area Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 49648-49658.	8.0	11
26	Gas chromatography-mass spectrometry analyses of encapsulated stable perovskite solar cells. <i>Science</i> , 2020, 368, .	12.6	306
27	Effects of Annealing Time on Triple Cation Perovskite Films and Their Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 29344-29356.	8.0	16
28	Acetic Acid Assisted Crystallization Strategy for High Efficiency and Long-Term Stable Perovskite Solar Cell. <i>Advanced Science</i> , 2020, 7, 1903368.	11.2	85
29	Superior Self-Charged and -Powered Chemical Sensing with High Performance for NO <sub>2</sub> Detection at Room Temperature. <i>Advanced Optical Materials</i> , 2020, 8, 1901863.	7.3	27
30	Large-Area 23%-Efficient Monolithic Perovskite/Homojunction-Silicon Tandem Solar Cell with Enhanced UV Stability Using Down-Shifting Material. <i>ACS Energy Letters</i> , 2019, 4, 2623-2631.	17.4	88
31	Minimizing Voltage Loss in Efficient All-Inorganic CsPbI <sub>2</sub> Br Perovskite Solar Cells through Energy Level Alignment. <i>ACS Energy Letters</i> , 2019, 4, 2491-2499.	17.4	68
32	Deconstruction-assisted perovskite formation for sequential solution processing of Cs <sub>0.15</sub> (MA <sub>0.7</sub> FA <sub>0.3</sub> ) <sub>0.85</sub> PbI <sub>3</sub> solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2019, 203, 110200.	6.2	8
33	Synergistic effect of potassium and iodine from potassium triiodide complex additive on gas-quenched perovskite solar cells. <i>Nano Energy</i> , 2019, 63, 103853.	16.0	37
34	Effect of Pressing Pressure on the Performance of Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2019, 2, 2358-2363.	5.1	11
35	Untapped Potentials of Inorganic Metal Halide Perovskite Solar Cells. <i>Joule</i> , 2019, 3, 938-955.	24.0	196
36	The Impact of a Dynamic Two-Step Solution Process on Film Formation of Cs <sub>0.15</sub> (MA <sub>0.7</sub> FA <sub>0.3</sub> ) <sub>0.85</sub> PbI <sub>3</sub> Perovskite and Solar Cell Performance. <i>Small</i> , 2019, 15, e1804858.	10.0	46

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37	Highly crystalline CsPbI <sub>2</sub> Br films for efficient perovskite solar cells via compositional engineering. RSC Advances, 2019, 9, 30534-30540.	3.6	7
38	Light-activated inorganic CsPbBr <sub>2</sub> I perovskite for room-temperature self-powered chemical sensing. Physical Chemistry Chemical Physics, 2019, 21, 24187-24193.	2.8	23
39	Enhanced performance via partial lead replacement with calcium for a CsPbI <sub>3</sub> perovskite solar cell exceeding 13% power conversion efficiency. Journal of Materials Chemistry A, 2018, 6, 5580-5586.	10.3	202
40	Superior Self-Powered Room-Temperature Chemical Sensing with Light-Activated Inorganic Halides Perovskites. Small, 2018, 14, 1702571.	10.0	82
41	Solution-Processed, Silver-Doped NiO <sub>x</sub> as Hole Transporting Layer for High-Efficiency Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 561-570.	5.1	95
42	Stereoselective synthesis of cyclopentafullerenes: the reaction of [60]fullerene with aldehydes and triethylamine promoted by magnesium perchlorate. New Journal of Chemistry, 2018, 42, 9291-9299.	2.8	10
43	Stereoselective synthesis of N-ethyl-2-arylvinyl-5-methyl fulleropyrrolidines: reaction of [60]fullerene with aromatic aldehydes and triethylamine/diethylamine in the absence or presence of manganese(III) acetate. Organic and Biomolecular Chemistry, 2018, 16, 2975-2985.	2.8	17
44	Metal-free synthesis of fulleropyrrolidin-2-ols: a novel reaction of [60]fullerene with amines and 2,2-disubstituted acetaldehydes. Organic and Biomolecular Chemistry, 2018, 16, 7648-7656.	2.8	10
45	Halogen-substituted fullerene derivatives for interface engineering of perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 21368-21378.	10.3	40
46	Electrode Design to Overcome Substrate Transparency Limitations for Highly Efficient 1 cm <sup>2</sup> Mesoscopic Perovskite Solar Cells. Joule, 2018, 2, 2694-2705.	24.0	34
47	Large area efficient interface layer free monolithic perovskite/homo-junction-silicon tandem solar cell with over 20% efficiency. Energy and Environmental Science, 2018, 11, 2432-2443.	30.8	172
48	High-Efficiency Rubidium-Incorporated Perovskite Solar Cells by Gas Quenching. ACS Energy Letters, 2017, 2, 438-444.	17.4	247
49	Spin-coating free fabrication for highly efficient perovskite solar cells. Solar Energy Materials and Solar Cells, 2017, 168, 165-171.	6.2	70
50	Configuration-centered photovoltaic applications of metal halide perovskites. Journal of Materials Chemistry A, 2017, 5, 902-909.	10.3	18
51	Switched Photocurrent on Tin Sulfide-Based Nanoplate Photoelectrodes. ChemSusChem, 2017, 10, 670-674.	6.8	18
52	Pyridine linked fluorene hybrid bipolar host for blue, green, and orange phosphorescent organic light-emitting diodes toward solution processing. Journal of Materials Chemistry C, 2017, 5, 11937-11946.	5.5	15
53	The Effect of Stoichiometry on the Stability of Inorganic Cesium Lead Mixed-Halide Perovskites Solar Cells. Journal of Physical Chemistry C, 2017, 121, 19642-19649.	3.1	101
54	Strontium-Doped Low-Temperature-Processed CsPbI <sub>2</sub> Br Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 2319-2325.	17.4	314

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55	Synthesis of 2-Aryl-5-alkyl-fulleropyrrolidines: Metal-Free-Mediated Reaction of [60]Fullerene with Aromatic Aldehydes and Inactive Primary Amines. <i>Journal of Organic Chemistry</i> , 2017, 82, 8617-8627.	3.2	19
56	Overcoming the Challenges of Large-Area High-Efficiency Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2017, 2, 1978-1984.	17.4	130
57	Recent advances in low-toxic lead-free metal halide perovskite materials for solar cell application. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2016, 11, 392-398.	1.5	26
58	Low-temperature processed solar cells with formamidinium tin halide perovskite/fullerene heterojunctions. <i>Nano Research</i> , 2016, 9, 1570-1577.	10.4	88
59	Highly compact and uniform CH <sub>3</sub> NH <sub>3</sub> Sn <sub>0.5</sub> Pb <sub>0.5</sub> I <sub>3</sub> films for efficient panchromatic planar perovskite solar cells. <i>Science Bulletin</i> , 2016, 61, 1558-1562.	9.0	25
60	Organic-inorganic bismuth (III)-based material: A lead-free, air-stable and solution-processable light-absorber beyond organolead perovskites. <i>Nano Research</i> , 2016, 9, 692-702.	10.4	351
61	Semitransparent Fully Air Processed Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 17776-17781.	8.0	75
62	Bias-dependent effects in planar perovskite solar cells based on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Cl films. <i>Journal of Colloid and Interface Science</i> , 2015, 453, 9-14.	9.4	11
63	Facile preparation of smooth perovskite films for efficient meso/planar hybrid structured perovskite solar cells. <i>Chemical Communications</i> , 2015, 51, 10038-10041.	4.1	49
64	Hole Selective NiO Contact for Efficient Perovskite Solar Cells with Carbon Electrode. <i>Nano Letters</i> , 2015, 15, 2402-2408.	9.1	412
65	Transition from the Tetragonal to Cubic Phase of Organohalide Perovskite: The Role of Chlorine in Crystal Formation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> on TiO <sub>2</sub> Substrates. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4379-4384.	4.6	91
66	NiO nanosheets as efficient top hole transporters for carbon counter electrode based perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 24121-24127.	10.3	91
67	Stable and Low-Cost Mesoscopic CH <sub>3</sub> NH <sub>3</sub> Pb <sub>2</sub> Br Perovskite Solar Cells by using a Thin Poly(3-hexylthiophene) Layer as a Hole Transporter. <i>Chemistry - A European Journal</i> , 2015, 21, 434-439.	3.3	106
68	Insight into the liquid state of organo-lead halide perovskites and their new roles in dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 10355.	10.3	8
69	Composition-dependent photoluminescence intensity and prolonged recombination lifetime of perovskite CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3-x</sub> Cl <sub>x</sub> films. <i>Chemical Communications</i> , 2014, 50, 11727-11730.	4.1	225
70	CdS sensitized nanoporous TiO <sub>2</sub> /CuO layer prepared by dealloying of Ti-Cu amorphous alloy. <i>Materials Letters</i> , 2012, 80, 131-134.	2.6	6
71	Large Area 23%-Efficient Monolithic Perovskite/Homo-Junction-Silicon Tandem Solar Cell with Enhanced UV Stability Using Down-Shifting Material. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
72	Low-pressure accessible gas-quenching for MA-free perovskite solar cells. , 0, , .		0