

# Xiaopeng Zheng

## List of Publications by Citations

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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.

47 papers	7,245 citations	33 h-index	48 g-index
48 ext. papers	9,148 ext. citations	20.8 avg, IF	6.21 L-index

#	Paper	IF	Citations
47	Defect passivation in hybrid perovskite solar cells using quaternary ammonium halide anions and cations. <i>Nature Energy</i> , <b>2017</b> , 2,	62.3	1241
46	Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. <i>Nature Energy</i> , <b>2020</b> , 5, 131-140	62.3	552
45	Conjugated Lewis Base: Efficient Trap-Passivation and Charge-Extraction for Hybrid Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2017</b> , 29, 1604545	24	431
44	Surfactant-controlled ink drying enables high-speed deposition of perovskite films for efficient photovoltaic modules. <i>Nature Energy</i> , <b>2018</b> , 3, 560-566	62.3	419
43	Strained hybrid perovskite thin films and their impact on the intrinsic stability of perovskite solar cells. <i>Science Advances</i> , <b>2017</b> , 3, eaao5616	14.3	399
42	17% Efficient Organic Solar Cells Based on Liquid Exfoliated WS as a Replacement for PEDOT:PSS. <i>Advanced Materials</i> , <b>2019</b> , 31, e1902965	24	384
41	Enhanced Thermal Stability in Perovskite Solar Cells by Assembling 2D/3D Stacking Structures. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 654-658	6.4	313
40	Single-Crystal MAPbI <sub>3</sub> Perovskite Solar Cells Exceeding 21% Power Conversion Efficiency. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 1258-1259	20.1	291
39	Self-Assembled Monolayer Enables Hole Transport Layer-Free Organic Solar Cells with 18% Efficiency and Improved Operational Stability. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 2935-2944	20.1	244
38	Grain Engineering for Perovskite/Silicon Monolithic Tandem Solar Cells with Efficiency of 25.4%. <i>Joule</i> , <b>2019</b> , 3, 177-190	27.8	227
37	Efficient Semitransparent Perovskite Solar Cells for 23.0%-Efficiency Perovskite/Silicon Four-Terminal Tandem Cells. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1601128	21.8	203
36	Dual Functions of Crystallization Control and Defect Passivation Enabled by Sulfonic Zwitterions for Stable and Efficient Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2018</b> , 30, e1803428	24	198
35	Composition Engineering in Doctor-Blading of Perovskite Solar Cells. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700302	21.8	195
34	Is Cu a stable electrode material in hybrid perovskite solar cells for a 30-year lifetime?. <i>Energy and Environmental Science</i> , <b>2016</b> , 9, 3650-3656	35.4	189
33	A Simple n-Dopant Derived from Diquat Boosts the Efficiency of Organic Solar Cells to 18.3%. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 3663-3671	20.1	175
32	Suppressed Ion Migration along the In-Plane Direction in Layered Perovskites. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 684-688	20.1	166
31	Quantum Dots Supply Bulk- and Surface-Passivation Agents for Efficient and Stable Perovskite Solar Cells. <i>Joule</i> , <b>2019</b> , 3, 1963-1976	27.8	154

30	Bright high-colour-purity deep-blue carbon dot light-emitting diodes via efficient edge amination. <i>Nature Photonics</i> , <b>2020</b> , 14, 171-176	33.9	144
29	Low Temperature Solution-Processed Sb:SnO Nanocrystals for Efficient Planar Perovskite Solar Cells. <i>ChemSusChem</i> , <b>2016</b> , 9, 2686-2691	8.3	138
28	Matching Charge Extraction Contact for Wide-Bandgap Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2017</b> , 29, 1700607	24	126
27	Reducing Defects in Halide Perovskite Nanocrystals for Light-Emitting Applications. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 2629-2640	6.4	122
26	Progress in Tandem Solar Cells Based on Hybrid Organic-Inorganic Perovskites. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1602400	21.8	101
25	Chlorine Vacancy Passivation in Mixed Halide Perovskite Quantum Dots by Organic Pseudohalides Enables Efficient Rec. 2020 Blue Light-Emitting Diodes. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 793-798	20.1	100
24	Low-Temperature Crystallization Enables 21.9% Efficient Single-Crystal MAPbI <sub>3</sub> Inverted Perovskite Solar Cells. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 657-662	20.1	96
23	22.8%-Efficient single-crystal mixed-cation inverted perovskite solar cells with a near-optimal bandgap. <i>Energy and Environmental Science</i> , <b>2021</b> , 14, 2263-2268	35.4	64
22	Argon Plasma Treatment to Tune Perovskite Surface Composition for High Efficiency Solar Cells and Fast Photodetectors. <i>Advanced Materials</i> , <b>2018</b> , 30, 1705176	24	60
21	All-Inorganic Quantum-Dot LEDs Based on a Phase-Stabilized ECsPbI Perovskite. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 16164-16170	16.4	59
20	18.4 % Organic Solar Cells Using a High Ionization Energy Self-Assembled Monolayer as Hole-Extraction Interlayer. <i>ChemSusChem</i> , <b>2021</b> , 14, 3569-3578	8.3	54
19	Color-pure red light-emitting diodes based on two-dimensional lead-free perovskites. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	52
18	Solution-Processed Visible-Blind Ultraviolet Photodetectors with Nanosecond Response Time and High Detectivity. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1900506	8.1	40
17	Ligand assisted growth of perovskite single crystals with low defect density. <i>Nature Communications</i> , <b>2021</b> , 12, 1686	17.4	37
16	Perovskite Single-Crystal Solar Cells: Going Forward. <i>ACS Energy Letters</i> , <b>2021</b> , 6, 631-642	20.1	37
15	Reversible Band Gap Narrowing of Sn-Based Hybrid Perovskite Single Crystal with Excellent Phase Stability. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 14868-14872	16.4	35
14	Compositionally Screened Eutectic Catalytic Coatings on Halide Perovskite Photocathodes for Photoassisted Selective CO <sub>2</sub> Reduction. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 1279-1286	20.1	32
13	Shape Control of Metal Halide Perovskite Single Crystals: From Bulk to Nanoscale. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 7602-7617	9.6	30

12	All-Perovskite Tandem Solar Cells: A Roadmap to Uniting High Efficiency with High Stability. <i>Accounts of Materials Research</i> , <b>2020</b> , 1, 63-76	7.5	28
11	Efficient and Spectrally Stable Blue Perovskite Light-Emitting Diodes Employing a Cationic $\pi$ -Conjugated Polymer. <i>Advanced Materials</i> , <b>2021</b> , 33, e2103640	24	18
10	28.2%-efficient, outdoor-stable perovskite/silicon tandem solar cell. <i>Joule</i> , <b>2021</b> ,	27.8	15
9	Self-Assembly and Regrowth of Metal Halide Perovskite Nanocrystals for Optoelectronic Applications.. <i>Accounts of Chemical Research</i> , <b>2022</b> ,	24.3	13
8	Reversible Band Gap Narrowing of Sn-Based Hybrid Perovskite Single Crystal with Excellent Phase Stability. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 15084-15088	3.6	13
7	Quantum Dot Self-Assembly Enables Low-Threshold Lasing. <i>Advanced Science</i> , <b>2021</b> , 8, e2101125	13.6	12
6	Broad-band lead halide perovskite quantum dot single-mode lasers. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 13642-13647	7.1	11
5	Cyanamide Passivation Enables Robust Elemental Imaging of Metal Halide Perovskites at Atomic Resolution. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 10402-10409	6.4	6
4	Overcoming Degradation Pathways to Achieve Stable Blue Perovskite Light-Emitting Diodes. <i>ACS Energy Letters</i> , <b>2022</b> , 7, 1348-1354	20.1	5
3	Photoactivated p-Doping of Organic Interlayer Enables Efficient Perovskite/Silicon Tandem Solar Cells. <i>ACS Energy Letters</i> , 1987-1993	20.1	4
2	Cryogenic Focused Ion Beam Enables Atomic-Resolution Imaging of Local Structures in Highly Sensitive Bulk Crystals and Devices.. <i>Journal of the American Chemical Society</i> , <b>2022</b> ,	16.4	3
1	All-Inorganic Quantum-Dot LEDs Based on a Phase-Stabilized $\text{HCsPbI}_3$ Perovskite. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 16300-16306	3.6	1