

Taiyang Zhang

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.

59 papers	4,520 citations	28 h-index	62 g-index
62 ext. papers	5,464 ext. citations	10.9 avg, IF	6.1 L-index

#	Paper	IF	Citations
59	Thermodynamically stabilized FAPbI_3 -based perovskite solar cells with efficiencies >18. <i>Science</i> , 2019 , 365, 591-595	33.3	644
58	Incorporation of lead iodide 2D perovskite component to stabilize inorganic FAPbI_3 perovskite phase for high-efficiency solar cells. <i>Science Advances</i> , 2017 , 3, e1700841	14.3	450
57	Bifunctional Stabilization of All-Inorganic FAPbI_3 Perovskite for 17% Efficiency Photovoltaics. <i>Journal of the American Chemical Society</i> , 2018 , 140, 12345-12348	16.4	434
56	Facile fabrication of large-grain $\text{CH}_3\text{NH}_3\text{PbI}_3\text{-xBr}_x$ films for high-efficiency solar cells via $\text{CH}_3\text{NH}_3\text{Br}$ -selective Ostwald ripening. <i>Nature Communications</i> , 2016 , 7, 12305	17.4	358
55	The Role of Dimethylammonium Iodide in CsPbI_3 Perovskite Fabrication: Additive or Dopant?. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 16691-16696	16.4	264
54	Controllable Sequential Deposition of Planar $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Films via Adjustable Volume Expansion. <i>Nano Letters</i> , 2015 , 15, 3959-63	11.5	217
53	Efficient FAPbI_3 Photovoltaics with Surface Terminated Organic Cations. <i>Joule</i> , 2018 , 2, 2065-2075	27.8	210
52	Carbon quantum dots decorated Bi_2WO_6 nanocomposite with enhanced photocatalytic oxidation activity for VOCs. <i>Applied Catalysis B: Environmental</i> , 2016 , 193, 16-21	21.8	198
51	A controllable fabrication of grain boundary PbI_2 nanoplates passivated lead halide perovskites for high performance solar cells. <i>Nano Energy</i> , 2016 , 26, 50-56	17.1	138
50	A Facile Low Temperature Fabrication of High Performance CsPbI_2Br All-Inorganic Perovskite Solar Cells. <i>Solar Rrl</i> , 2018 , 2, 1700180	7.1	124
49	Mixed cation hybrid lead halide perovskites with enhanced performance and stability. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 11450-11461	13	123
48	A facile solvothermal growth of single crystal mixed halide perovskite $\text{CH}_3\text{NH}_3\text{Pb}(\text{Br}(1-x)\text{Cl}(x))_3$. <i>Chemical Communications</i> , 2015 , 51, 7820-3	5.8	114
47	Hydrochloric acid accelerated formation of planar $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite with high humidity tolerance. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 19674-19678	13	108
46	In Situ Fabrication of Highly Luminescent Bifunctional Amino Acid Crosslinked 2D/3D $\text{NH}_3\text{C}_4\text{H}_9\text{COO}(\text{CH}_3\text{NH}_3\text{PbBr}_3)_n$ Perovskite Films. <i>Advanced Functional Materials</i> , 2017 , 27, 1603568	15.6	103
45	All-inorganic lead-free perovskites for optoelectronic applications. <i>Materials Chemistry Frontiers</i> , 2019 , 3, 365-375	7.8	77
44	Ion-Exchange-Induced 2D-3D Conversion of HMA FA PbI_3 Cl Perovskite into a High-Quality MA FA PbI_3 Perovskite. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 13460-13464	16.4	71
43	Li dopant induces moisture sensitive phase degradation of an all-inorganic CsPbI_3 perovskite. <i>Chemical Communications</i> , 2018 , 54, 9809-9812	5.8	66

42	A novel highly active nanostructured IrO ₂ /Ti anode for water oxidation. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 14279-14283	6.7	48
41	Chemically Stable Black Phase CsPbI ₃ Inorganic Perovskites for High-Efficiency Photovoltaics. <i>Advanced Materials</i> , 2020 , 32, e2001025	24	48
40	A general non-CH ₃ NH ₃ X (X = I, Br) one-step deposition of CH ₃ NH ₃ PbX ₃ perovskite for high performance solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 3245-3248	13	43
39	Synergetic Effect of Chloride Doping and CH ₃ NH ₃ PbCl on CH ₃ NH ₃ PbI ₃ Perovskite-Based Solar Cells. <i>ChemSusChem</i> , 2017 , 10, 2365-2369	8.3	42
38	Steric Mixed-Cation 2D Perovskite as a Methylammonium Locker to Stabilize MAPbI ₃ . <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 1469-1473	16.4	35
37	The Role of Dimethylammonium Iodide in CsPbI ₃ Perovskite Fabrication: Additive or Dopant?. <i>Angewandte Chemie</i> , 2019 , 131, 16844-16849	3.6	32
36	Organic Tetrabutylammonium Cation Intercalation to Heal Inorganic CsPbI ₃ Perovskite. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 12351-12355	16.4	32
35	Facile assembly of silica gel/reduced graphene oxide/Ag nanoparticle composite with a core-shell structure and its excellent catalytic properties. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 2952	13	31
34	Organic salt mediated growth of phase pure and stable all-inorganic CsPbX ₃ (X = I, Br) perovskites for efficient photovoltaics. <i>Science Bulletin</i> , 2019 , 64, 1773-1779	10.6	29
33	Photostability of MAPbI ₃ Perovskite Solar Cells by Incorporating Black Phosphorus. <i>Solar Rrl</i> , 2019 , 3, 1900197	7.1	28
32	Highly photocatalytic active thiomolybdate [Mo ₃ S ₁₃] ²⁻ clusters/BiOBr nanocomposite with enhanced sulfur tolerance. <i>Applied Catalysis B: Environmental</i> , 2016 , 183, 1-7	21.8	28
31	Spontaneous low-temperature crystallization of FAPbI ₃ for highly efficient perovskite solar cells. <i>Science Bulletin</i> , 2019 , 64, 1608-1616	10.6	27
30	CsI Enhanced Buried Interface for Efficient and UV-Robust Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2021 , 11, 2103151	21.8	27
29	Advances to High-Performance Black-Phase FAPbI ₃ Perovskite for Efficient and Stable Photovoltaics. <i>Small Structures</i> , 2021 , 2, 2000130	8.7	25
28	Highly Active IrO _x Nanoparticles/Black Si Electrode for Efficient Water Splitting with Conformal TiO ₂ Interface Engineering. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 10940-10946	8.3	22
27	Integration of a functionalized graphene nano-network into a planar perovskite absorber for high-efficiency large-area solar cells. <i>Materials Horizons</i> , 2018 , 5, 868-873	14.4	21
26	Reduced graphene oxide/potassium niobate composite nanoscrolls with enhanced photocatalytic activity for dye degradation. <i>Separation and Purification Technology</i> , 2013 , 108, 139-142	8.3	21
25	CH ₃ NH ₃ Cl Assisted Solvent Engineering for Highly Crystallized and Large Grain Size Mixed-Composition (FAPbI ₃) _{0.85} (MAPbBr ₃) _{0.15} Perovskites. <i>Crystals</i> , 2017 , 7, 272	2.3	20

24	In situ growth of ultra-thin perovskitoid layer to stabilize and passivate MAPbI ₃ for efficient and stable photovoltaics. <i>EScience</i> , 2021 ,		20
23	A facile deposition of large grain and phase pure FAPbI ₃ for perovskite solar cells via a flash crystallization. <i>Materials Today Energy</i> , 2017 , 5, 293-298	7	19
22	A mixed-cation lead iodide MA _{1-x} EA _x PbI ₃ absorber for perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2018 , 27, 215-218	12	18
21	Interfacial crosslinked quasi-2D perovskite with boosted carrier transport and enhanced stability. <i>Journal Physics D: Applied Physics</i> , 2018 , 51, 404001	3	18
20	Facile assembly and properties of polystyrene microsphere/reduced graphene oxide/Ag composite. <i>Journal of Colloid and Interface Science</i> , 2013 , 402, 279-83	9.3	18
19	In situ gas/solid reaction for the formation of luminescent quantum confined CH ₃ NH ₃ PbBr ₃ perovskite planar film. <i>Chemical Communications</i> , 2016 , 52, 11080-3	5.8	18
18	Optoelectronic Dichotomy of Mixed Halide CH ₃ NHPb(BrCl) Single Crystals: Surface versus Bulk Photoluminescence. <i>Journal of the American Chemical Society</i> , 2018 , 140, 11811-11819	16.4	18
17	Novel reduced graphene oxide/Ag nanoparticle composite film with sensitive detection activity towards trace formaldehyde. <i>Sensors and Actuators B: Chemical</i> , 2017 , 242, 1129-1132	8.5	17
16	Highly Efficient (110) Orientated FA-MA Mixed Cation Perovskite Solar Cells via Functionalized Carbon Nanotube and Methylammonium Chloride Additive. <i>Small Methods</i> , 2020 , 4, 1900511	12.8	13
15	Steric Mixed-Cation 2D Perovskite as a Methylammonium Locker to Stabilize MAPbI ₃ . <i>Angewandte Chemie</i> , 2020 , 132, 1485-1489	3.6	11
14	Organic Tetrabutylammonium Cation Intercalation to Heal Inorganic CsPbI ₃ Perovskite. <i>Angewandte Chemie</i> , 2021 , 133, 12459-12463	3.6	11
13	Highly photocatalytic active thiomolybdate [Mo ₃ S ₁₃] 2 ⁻ clusters/Bi ₂ WO ₆ nanocomposites. <i>Catalysis Today</i> , 2016 , 274, 22-27	5.3	10
12	Stable Cesium-Rich Formamidinium/Cesium Pure-Iodide Perovskites for Efficient Photovoltaics. <i>ACS Energy Letters</i> , 2021 , 6, 2735-2741	20.1	9
11	A simple fabrication of CH ₃ NH ₃ PbI ₃ perovskite for solar cells using low-purity PbI ₂ . <i>Journal of Semiconductors</i> , 2017 , 38, 014004	2.3	8
10	Potassium stabilization of methylammonium lead bromide perovskite for robust photocatalytic H ₂ generation. <i>EcoMat</i> , 2020 , 2, e12015	9.4	8
9	Deep-Red Perovskite Light-Emitting Diodes Based on One-Step-Formed CsPbI ₃ Cuboid Crystallites. <i>Advanced Materials</i> , 2021 , 33, e2105699	24	8
8	Recent Progress of Lead Halide Perovskite Sensitized Solar Cells. <i>Acta Chimica Sinica</i> , 2015 , 73, 202	3.3	7
7	5-Ammonium Valeric Acid Iodide to Stabilize MAPbI ₃ via a Mixed-Cation Perovskite with Reduced Dimension. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 8170-8176	6.4	7

6	Ion-Exchange-Induced 2D/3D Conversion of HMA1-xFAxPbI3Cl Perovskite into a High-Quality MA1-xFAxPbI3 Perovskite. <i>Angewandte Chemie</i> , 2016 , 128, 13658-13662	3.6	7
5	Fast Charge Diffusion in MAPb(I/Br) Films for High-Efficiency Solar Cells Revealed by Ultrafast Time-Resolved Reflectivity. <i>Journal of Physical Chemistry A</i> , 2019 , 123, 2674-2678	2.8	5
4	Improved performance of CH3NH3PbBr3 perovskite solar cells utilizing PbI2 precursors. <i>Chemical Physics Letters</i> , 2017 , 687, 106-109	2.5	4
3	Synergetic effects of DMA cation doping and Cl anion additives induced re-growth of MA1-xDMAxPbI3 perovskites. <i>Sustainable Energy and Fuels</i> ,	5.8	2
2	MA Cation-Induced Diffusional Growth of Low-Bandgap FA-Cs Perovskites Driven by Natural Gradient Annealing. <i>Research</i> , 2021 , 2021, 9765106	7.8	2
1	A renewable photocatalytic system with dramatic photocatalytic activity for H2 evolution and constant light energy utilization: eosin Y sensitized ZnWO4 nanoplates loaded with CuO nanoparticles. <i>New Journal of Chemistry</i> , 2021 , 45, 17266-17277	3.6	1