

# Taiyang Zhang

## 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.

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	Deep-Red Perovskite Light-Emitting Diodes Based on One-Step-Formed $\text{ECsPbI}_3$ Cuboid Crystallites. <i>Advanced Materials</i> , <b>2021</b> , 33, e2105699	24	8
58	In situ growth of ultra-thin perovskitoid layer to stabilize and passivate $\text{MAPbI}_3$ for efficient and stable photovoltaics. <i>EScience</i> , <b>2021</b> ,		20
57	Organic Tetrabutylammonium Cation Intercalation to Heal Inorganic $\text{CsPbI}_3$ Perovskite. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 12459-12463	3.6	11
56	Organic Tetrabutylammonium Cation Intercalation to Heal Inorganic $\text{CsPbI}_3$ Perovskite. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 12351-12355	16.4	32
55	A renewable photocatalytic system with dramatic photocatalytic activity for $\text{H}_2$ evolution and constant light energy utilization: eosin Y sensitized $\text{ZnWO}_4$ nanoplates loaded with $\text{CuO}$ nanoparticles. <i>New Journal of Chemistry</i> , <b>2021</b> , 45, 17266-17277	3.6	1
54	Advances to High-Performance Black-Phase $\text{FAPbI}_3$ Perovskite for Efficient and Stable Photovoltaics. <i>Small Structures</i> , <b>2021</b> , 2, 2000130	8.7	25
53	Stable Cesium-Rich Formamidinium/Cesium Pure-Iodide Perovskites for Efficient Photovoltaics. <i>ACS Energy Letters</i> , <b>2021</b> , 6, 2735-2741	20.1	9
52	MA Cation-Induced Diffusional Growth of Low-Bandgap FA-Cs Perovskites Driven by Natural Gradient Annealing. <i>Research</i> , <b>2021</b> , 2021, 9765106	7.8	2
51	Potassium stabilization of methylammonium lead bromide perovskite for robust photocatalytic $\text{H}_2$ generation. <i>EcoMat</i> , <b>2020</b> , 2, e12015	9.4	8
50	Steric Mixed-Cation 2D Perovskite as a Methylammonium Locker to Stabilize $\text{MAPbI}_3$ . <i>Angewandte Chemie</i> , <b>2020</b> , 132, 1485-1489	3.6	11
49	Steric Mixed-Cation 2D Perovskite as a Methylammonium Locker to Stabilize $\text{MAPbI}_3$ . <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 1469-1473	16.4	35
48	Chemically Stable Black Phase $\text{CsPbI}_3$ Inorganic Perovskites for High-Efficiency Photovoltaics. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001025	24	48
47	5-Ammonium Valeric Acid Iodide to Stabilize $\text{MAPbI}_3$ via a Mixed-Cation Perovskite with Reduced Dimension. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 8170-8176	6.4	7
46	Highly Efficient (110) Orientated FA-MA Mixed Cation Perovskite Solar Cells via Functionalized Carbon Nanotube and Methylammonium Chloride Additive. <i>Small Methods</i> , <b>2020</b> , 4, 1900511	12.8	13
45	Spontaneous low-temperature crystallization of $\text{FAPbI}_3$ for highly efficient perovskite solar cells. <i>Science Bulletin</i> , <b>2019</b> , 64, 1608-1616	10.6	27
44	All-inorganic lead-free perovskites for optoelectronic applications. <i>Materials Chemistry Frontiers</i> , <b>2019</b> , 3, 365-375	7.8	77
43	Photostability of $\text{MAPbI}_3$ Perovskite Solar Cells by Incorporating Black Phosphorus. <i>Solar Rrl</i> , <b>2019</b> , 3, 1900197	7.1	28

42	Fast Charge Diffusion in MAPb(IBr ) Films for High-Efficiency Solar Cells Revealed by Ultrafast Time-Resolved Reflectivity. <i>Journal of Physical Chemistry A</i> , <b>2019</b> , 123, 2674-2678	2.8	5
41	Thermodynamically stabilized $\text{ECsPbI}$ -based perovskite solar cells with efficiencies >18. <i>Science</i> , <b>2019</b> , 365, 591-595	33.3	644
40	The Role of Dimethylammonium Iodide in CsPbI Perovskite Fabrication: Additive or Dopant?. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 16691-16696	16.4	264
39	The Role of Dimethylammonium Iodide in CsPbI <sub>3</sub> Perovskite Fabrication: Additive or Dopant?. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 16844-16849	3.6	32
38	Organic salt mediated growth of phase pure and stable all-inorganic CsPbX <sub>3</sub> (X = I, Br) perovskites for efficient photovoltaics. <i>Science Bulletin</i> , <b>2019</b> , 64, 1773-1779	10.6	29
37	A Facile Low Temperature Fabrication of High Performance CsPbI <sub>2</sub> Br All-Inorganic Perovskite Solar Cells. <i>Solar Rrl</i> , <b>2018</b> , 2, 1700180	7.1	124
36	A mixed-cation lead iodide MA <sub>1-x</sub> EA <sub>x</sub> PbI <sub>3</sub> absorber for perovskite solar cells. <i>Journal of Energy Chemistry</i> , <b>2018</b> , 27, 215-218	12	18
35	Li dopant induces moisture sensitive phase degradation of an all-inorganic CsPbI <sub>2</sub> Br perovskite. <i>Chemical Communications</i> , <b>2018</b> , 54, 9809-9812	5.8	66
34	Interfacial crosslinked quasi-2D perovskite with boosted carrier transport and enhanced stability. <i>Journal Physics D: Applied Physics</i> , <b>2018</b> , 51, 404001	3	18
33	Efficient $\text{ECsPbI}_3$ Photovoltaics with Surface Terminated Organic Cations. <i>Joule</i> , <b>2018</b> , 2, 2065-2075	27.8	210
32	Integration of a functionalized graphene nano-network into a planar perovskite absorber for high-efficiency large-area solar cells. <i>Materials Horizons</i> , <b>2018</b> , 5, 868-873	14.4	21
31	Bifunctional Stabilization of All-Inorganic $\text{ECsPbI}$ Perovskite for 17% Efficiency Photovoltaics. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 12345-12348	16.4	434
30	Optoelectronic Dichotomy of Mixed Halide CH <sub>3</sub> NH <sub>2</sub> Pb(BrCl ) Single Crystals: Surface versus Bulk Photoluminescence. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 11811-11819	16.4	18
29	A simple fabrication of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite for solar cells using low-purity PbI <sub>2</sub> . <i>Journal of Semiconductors</i> , <b>2017</b> , 38, 014004	2.3	8
28	Synergetic Effect of Chloride Doping and CH <sub>3</sub> NH <sub>2</sub> PbCl on CH <sub>3</sub> NH <sub>2</sub> PbI <sub>2</sub> Perovskite-Based Solar Cells. <i>ChemSusChem</i> , <b>2017</b> , 10, 2365-2369	8.3	42
27	Mixed cation hybrid lead halide perovskites with enhanced performance and stability. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 11450-11461	13	123
26	Highly Active IrO <sub>x</sub> Nanoparticles/Black Si Electrode for Efficient Water Splitting with Conformal TiO <sub>2</sub> Interface Engineering. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2017</b> , 5, 10940-10946	8.3	22
25	Bication lead iodide 2D perovskite component to stabilize inorganic $\text{ECsPbI}$ perovskite phase for high-efficiency solar cells. <i>Science Advances</i> , <b>2017</b> , 3, e1700841	14.3	450

24	Improved performance of CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> perovskite solar cells utilizing PbI <sub>2</sub> precursors. <i>Chemical Physics Letters</i> , <b>2017</b> , 687, 106-109	2.5	4
23	A facile deposition of large grain and phase pure FAPbI <sub>3</sub> for perovskite solar cells via a flash crystallization. <i>Materials Today Energy</i> , <b>2017</b> , 5, 293-298	7	19
22	In Situ Fabrication of Highly Luminescent Bifunctional Amino Acid Crosslinked 2D/3D NH <sub>3</sub> C <sub>4</sub> H <sub>9</sub> COO(CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> ) <sub>n</sub> Perovskite Films. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1603568	15.6	103
21	Novel reduced graphene oxide/Ag nanoparticle composite film with sensitive detection activity towards trace formaldehyde. <i>Sensors and Actuators B: Chemical</i> , <b>2017</b> , 242, 1129-1132	8.5	17
20	CH <sub>3</sub> NH <sub>3</sub> Cl Assisted Solvent Engineering for Highly Crystallized and Large Grain Size Mixed-Composition (FAPbI <sub>3</sub> ) <sub>0.85</sub> (MAPbBr <sub>3</sub> ) <sub>0.15</sub> Perovskites. <i>Crystals</i> , <b>2017</b> , 7, 272	2.3	20
19	Facile fabrication of large-grain CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -xBr <sub>x</sub> films for high-efficiency solar cells via CH <sub>3</sub> NH <sub>3</sub> Br-selective Ostwald ripening. <i>Nature Communications</i> , <b>2016</b> , 7, 12305	17.4	358
18	Highly photocatalytic active thiomolybdate [Mo <sub>3</sub> S <sub>13</sub> ] 2 <sup>-</sup> clusters/Bi <sub>2</sub> WO <sub>6</sub> nanocomposites. <i>Catalysis Today</i> , <b>2016</b> , 274, 22-27	5.3	10
17	A general non-CH <sub>3</sub> NH <sub>3</sub> X (X = I, Br) one-step deposition of CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> perovskite for high performance solar cells. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 3245-3248	13	43
16	Highly photocatalytic active thiomolybdate [Mo <sub>3</sub> S <sub>13</sub> ] 2 <sup>-</sup> clusters/BiOBr nanocomposite with enhanced sulfur tolerance. <i>Applied Catalysis B: Environmental</i> , <b>2016</b> , 183, 1-7	21.8	28
15	A controllable fabrication of grain boundary PbI <sub>2</sub> nanoplates passivated lead halide perovskites for high performance solar cells. <i>Nano Energy</i> , <b>2016</b> , 26, 50-56	17.1	138
14	Carbon quantum dots decorated Bi <sub>2</sub> WO <sub>6</sub> nanocomposite with enhanced photocatalytic oxidation activity for VOCs. <i>Applied Catalysis B: Environmental</i> , <b>2016</b> , 193, 16-21	21.8	198
13	Ion-Exchange-Induced 2D-3D Conversion of HMA FA PbI Cl Perovskite into a High-Quality MA FA PbI Perovskite. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 13460-13464	16.4	71
12	Ion-Exchange-Induced 2D-3D Conversion of HMA MA FA PbI <sub>3</sub> Cl Perovskite into a High-Quality MA MA FA PbI <sub>3</sub> Perovskite. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 13658-13662	3.6	7
11	In situ gas/solid reaction for the formation of luminescent quantum confined CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> perovskite planar film. <i>Chemical Communications</i> , <b>2016</b> , 52, 11080-3	5.8	18
10	A facile solvothermal growth of single crystal mixed halide perovskite CH <sub>3</sub> NH <sub>3</sub> Pb(Br(1-x)Cl(x)) <sub>3</sub> . <i>Chemical Communications</i> , <b>2015</b> , 51, 7820-3	5.8	114
9	Hydrochloric acid accelerated formation of planar CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite with high humidity tolerance. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 19674-19678	13	108
8	A novel highly active nanostructured IrO <sub>2</sub> /Ti anode for water oxidation. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 14279-14283	6.7	48
7	Controllable Sequential Deposition of Planar CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Films via Adjustable Volume Expansion. <i>Nano Letters</i> , <b>2015</b> , 15, 3959-63	11.5	217

6	Recent Progress of Lead Halide Perovskite Sensitized Solar Cells. <i>Acta Chimica Sinica</i> , <b>2015</b> , 73, 202	3.3	7
5	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> , <b>2014</b> , 2, 2952	13	31
4	Facile assembly and properties of polystyrene microsphere/reduced graphene oxide/Ag composite. <i>Journal of Colloid and Interface Science</i> , <b>2013</b> , 402, 279-83	9.3	18
3	Reduced graphene oxide/potassium niobate composite nanoscrolls with enhanced photocatalytic activity for dye degradation. <i>Separation and Purification Technology</i> , <b>2013</b> , 108, 139-142	8.3	21
2	CsI Enhanced Buried Interface for Efficient and UV-Robust Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2103151	21.8	27
1	Synergetic effects of DMA cation doping and Cl anion additives induced re-growth of MA <sub>1-x</sub> DMA <sub>x</sub> PbI <sub>3</sub> perovskites. <i>Sustainable Energy and Fuels</i> ,	5.8	2