

# Tze-Bin Song

## 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.

63 papers	16,859 citations	42 h-index	64 g-index
64 ext. papers	18,302 ext. citations	14.3 avg, IF	6.51 L-index

#	Paper	IF	Citations
63	Out-of-equilibrium processes in crystallization of organic-inorganic perovskites during spin coating. <i>Nature Communications</i> , <b>2021</b> , 12, 5624	17.4	10
62	Dynamics of Antisolvent Processed Hybrid Metal Halide Perovskites Studied by In Situ Photoluminescence and Its Influence on Optoelectronic Properties. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 2386-2393	6.1	15
61	Revealing the Dynamics of Hybrid Metal Halide Perovskite Formation via Multimodal In Situ Probes. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1908337	15.6	25
60	Probing the in situ dynamics of structure-property evolution in hybrid perovskite thin films spincoated from complex fluids by a custom-designed beamline-compatible multimodal measurement chamber. <i>Acta Crystallographica Section A: Foundations and Advances</i> , <b>2019</b> , 75, a155-a156	1.7	3
59	Modern Processing and Insights on Selenium Solar Cells: The World's First Photovoltaic Device. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1802766	21.8	27
58	Zero-Dimensional Cs <sub>2</sub> Tel <sub>6</sub> Perovskite: Solution-Processed Thick Films with High X-ray Sensitivity. <i>ACS Photonics</i> , <b>2019</b> , 6, 196-203	6.3	43
57	Understanding macroscale functionality of metal halide perovskites in terms of nanoscale heterogeneities. <i>JPhys Energy</i> , <b>2019</b> , 1, 011002	4.9	3
56	High Hole Mobility and Nonsaturating Giant Magnetoresistance in the New 2D Metal NaCuSe Synthesized by a Unique Pathway. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 635-642	16.4	9
55	Piperazine Suppresses Self-Doping in CsSnI <sub>3</sub> Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2018</b> , 1, 4221-4226	6.1	63
54	Slow thermal equilibration in methylammonium lead iodide revealed by transient mid-infrared spectroscopy. <i>Nature Communications</i> , <b>2018</b> , 9, 2792	17.4	21
53	Weak Electron Phonon Coupling and Deep Level Impurity for High Thermoelectric Performance Pb <sub>1-x</sub> GaxTe. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800659	21.8	75
52	In Situ Synthesis of Highly Dispersed and Ultrafine Metal Nanoparticles from Chalcogels. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 2900-2903	16.4	55
51	Multichannel Interdiffusion Driven FASnI Film Formation Using Aqueous Hybrid Salt/Polymer Solutions toward Flexible Lead-Free Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2017</b> , 29, 1606964	24	117
50	The Origin of Lower Hole Carrier Concentration in Methylammonium Tin Halide Films Grown by a Vapor-Assisted Solution Process. <i>ACS Energy Letters</i> , <b>2017</b> , 2, 22-28	20.1	82
49	Thin Films and Solar Cells Based on Semiconducting Two-Dimensional Ruddlesden-Popper (CH <sub>3</sub> (CH <sub>2</sub> ) <sub>3</sub> NH <sub>3</sub> ) <sub>2</sub> (CH <sub>3</sub> NH <sub>3</sub> ) <sub>n</sub> SnnI <sub>3n+1</sub> Perovskites. <i>ACS Energy Letters</i> , <b>2017</b> , 2, 982-990	20.1	274
48	Performance Enhancement of Lead-Free Tin-Based Perovskite Solar Cells with Reducing Atmosphere-Assisted Dispersible Additive. <i>ACS Energy Letters</i> , <b>2017</b> , 2, 897-903	20.1	216
47	Importance of Reducing Vapor Atmosphere in the Fabrication of Tin-Based Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 836-842	16.4	340

46	Highly Efficient Separation of Trivalent Minor Actinides by a Layered Metal Sulfide (KInSnS) from Acidic Radioactive Waste. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 16494-16497	16.4	58
45	Millisecond-pulsed photonicallly-annealed tin oxide electron transport layers for efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 24110-24115	13	32
44	Improved air stability of perovskite solar cells via solution-processed metal oxide transport layers. <i>Nature Nanotechnology</i> , <b>2016</b> , 11, 75-81	28.7	1614
43	Copper Ion Binding Site in $\beta$ -Amyloid Peptide. <i>Nano Letters</i> , <b>2016</b> , 16, 6282-6289	11.5	32
42	Hexagons to Ribbons: Flipping Cyanide on Au{111}. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 15580-15586	16.4	7
41	Surface Structure and Electron Transfer Dynamics of the Self-Assembly of Cyanide on Au{111}. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 26736-26746	3.8	15
40	Overcoming Short-Circuit in Lead-Free CH <sub>3</sub> NH <sub>3</sub> SnI <sub>3</sub> Perovskite Solar Cells via Kinetically Controlled Gas-Solid Reaction Film Fabrication Process. <i>Journal of Physical Chemistry Letters</i> , <b>2016</b> , 7, 776-82	6.4	242
39	Efficiency Enhancement of Cu <sub>2</sub> ZnSn(S,Se) <sub>4</sub> Solar Cells via Alkali Metals Doping. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1502386	21.8	91
38	Perovskite Solar Cells Employing Dopant-Free Organic Hole Transport Materials with Tunable Energy Levels. <i>Advanced Materials</i> , <b>2016</b> , 28, 440-6	24	217
37	Silver nanowires with semiconducting ligands for low-temperature transparent conductors. <i>Nano Research</i> , <b>2016</b> , 9, 392-400	10	25
36	Solution-Processed Air-Stable Mesoscopic Selenium Solar Cells. <i>ACS Energy Letters</i> , <b>2016</b> , 1, 469-473	20.1	29
35	Unraveling film transformations and device performance of planar perovskite solar cells. <i>Nano Energy</i> , <b>2015</b> , 12, 494-500	17.1	61
34	10.5% efficient polymer and amorphous silicon hybrid tandem photovoltaic cell. <i>Nature Communications</i> , <b>2015</b> , 6, 6391	17.4	38
33	Improving the TiO <sub>2</sub> electron transport layer in perovskite solar cells using acetylacetonate-based additives. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 9108-9115	13	94
32	Perovskite solar cells: film formation and properties. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 9032-9050	3	327
31	Under the spotlight: The organic-inorganic hybrid halide perovskite for optoelectronic applications. <i>Nano Today</i> , <b>2015</b> , 10, 355-396	17.9	700
30	Multilayer Transparent Top Electrode for Solution Processed Perovskite/Cu(In,Ga)(Se,S) <sub>2</sub> Four Terminal Tandem Solar Cells. <i>ACS Nano</i> , <b>2015</b> , 9, 7714-21	16.7	139
29	The optoelectronic role of chlorine in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> (Cl)-based perovskite solar cells. <i>Nature Communications</i> , <b>2015</b> , 6, 7269	17.4	354

28	A dopant-free organic hole transport material for efficient planar heterojunction perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 11940-11947	13	182
27	Highly Robust Silver Nanowire Network for Transparent Electrode. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 24601-7	9.5	91
26	Hexaaqua Metal Complexes for Low-Temperature Formation of Fully Metal Oxide Thin-Film Transistors. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 5808-5812	9.6	68
25	Integrated perovskite/bulk-heterojunction toward efficient solar cells. <i>Nano Letters</i> , <b>2015</b> , 15, 662-8	11.5	129
24	The identification and characterization of defect states in hybrid organic-inorganic perovskite photovoltaics. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 112-6	3.6	285
23	Differences in the Toxicological Potential of 2D versus Aggregated Molybdenum Disulfide in the Lung. <i>Small</i> , <b>2015</b> , 11, 5079-87	11	76
22	Aspect ratio plays a role in the hazard potential of CeO <sub>2</sub> nanoparticles in mouse lung and zebrafish gastrointestinal tract. <i>ACS Nano</i> , <b>2014</b> , 8, 4450-64	16.7	89
21	Current-voltage characteristics of fully solution processed high performance CuIn(S,Se) <sub>2</sub> solar cells: Crossover and red kink. <i>Solar Energy Materials and Solar Cells</i> , <b>2014</b> , 120, 642-646	6.4	26
20	Low-temperature solution-processed perovskite solar cells with high efficiency and flexibility. <i>ACS Nano</i> , <b>2014</b> , 8, 1674-80	16.7	1216
19	Spatial element distribution control in a fully solution-processed nanocrystals-based 8.6% Cu <sub>2</sub> ZnSn(S,Se) <sub>4</sub> device. <i>ACS Nano</i> , <b>2014</b> , 8, 9164-72	16.7	46
18	Photovoltaics. Interface engineering of highly efficient perovskite solar cells. <i>Science</i> , <b>2014</b> , 345, 542-6	33.3	5272
17	Nanoscale Joule heating and electromigration enhanced ripening of silver nanowire contacts. <i>ACS Nano</i> , <b>2014</b> , 8, 2804-11	16.7	251
16	Controllable self-induced passivation of hybrid lead iodide perovskites toward high performance solar cells. <i>Nano Letters</i> , <b>2014</b> , 14, 4158-63	11.5	1143
15	Emerging Transparent Conducting Electrodes for Organic Light Emitting Diodes. <i>Electronics (Switzerland)</i> , <b>2014</b> , 3, 190-204	2.6	42
14	Moisture assisted perovskite film growth for high performance solar cells. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 183902	3.4	598
13	CZTS nanocrystals: a promising approach for next generation thin film photovoltaics. <i>Energy and Environmental Science</i> , <b>2013</b> , 6, 2822	35.4	260
12	Rational defect passivation of Cu <sub>2</sub> ZnSn(S,Se) <sub>4</sub> photovoltaics with solution-processed Cu <sub>2</sub> ZnSnS <sub>4</sub> :Na nanocrystals. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 15998-6001	16.4	127
11	Surface charge and cellular processing of covalently functionalized multiwall carbon nanotubes determine pulmonary toxicity. <i>ACS Nano</i> , <b>2013</b> , 7, 2352-68	16.7	232

10	Studies of carrier recombination in solution-processed CuIn(S,Se) <sub>2</sub> through photoluminescence spectroscopy. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 063902	3.4	5
9	Nanoscale Dispersions of Gelled SnO <sub>2</sub> : Material Properties and Device Applications. <i>Chemistry of Materials</i> , <b>2013</b> , 25, 4725-4730	9.6	65
8	Effect of Tether Conductivity on the Efficiency of Photoisomerization of Azobenzene-Functionalized Molecules on Au{111}. <i>Journal of Physical Chemistry Letters</i> , <b>2012</b> , 3, 2388-94	6.4	22
7	Silver nanowire composite window layers for fully solution-deposited thin-film photovoltaic devices. <i>Advanced Materials</i> , <b>2012</b> , 24, 5499-504	24	111
6	Surface-enhanced Raman spectroscopy to probe photoreaction pathways and kinetics of isolated reactants on surfaces: flat versus curved substrates. <i>Nano Letters</i> , <b>2012</b> , 12, 5362-8	11.5	38
5	Pluronic F108 coating decreases the lung fibrosis potential of multiwall carbon nanotubes by reducing lysosomal injury. <i>Nano Letters</i> , <b>2012</b> , 12, 3050-61	11.5	142
4	Solution-processed flexible transparent conductors composed of silver nanowire networks embedded in indium tin oxide nanoparticle matrices. <i>Nano Research</i> , <b>2012</b> , 5, 805-814	10	124
3	Visibly transparent polymer solar cells produced by solution processing. <i>ACS Nano</i> , <b>2012</b> , 6, 7185-90	16.7	434
2	Solution-Processed TiO <sub>2</sub> Nanoparticles as the Window Layer for CuIn(S,Se) <sub>2</sub> Devices. <i>Advanced Energy Materials</i> , <b>2012</b> , 2, 1368-1374	21.8	6
1	Fused silver nanowires with metal oxide nanoparticles and organic polymers for highly transparent conductors. <i>ACS Nano</i> , <b>2011</b> , 5, 9877-82	16.7	326