

Tze-Bin Song

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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	Photovoltaics. Interface engineering of highly efficient perovskite solar cells. <i>Science</i> , 2014 , 345, 542-6	33.3	5272
62	Improved air stability of perovskite solar cells via solution-processed metal oxide transport layers. <i>Nature Nanotechnology</i> , 2016 , 11, 75-81	28.7	1614
61	Low-temperature solution-processed perovskite solar cells with high efficiency and flexibility. <i>ACS Nano</i> , 2014 , 8, 1674-80	16.7	1216
60	Controllable self-induced passivation of hybrid lead iodide perovskites toward high performance solar cells. <i>Nano Letters</i> , 2014 , 14, 4158-63	11.5	1143
59	Under the spotlight: The organic/inorganic hybrid halide perovskite for optoelectronic applications. <i>Nano Today</i> , 2015 , 10, 355-396	17.9	700
58	Moisture assisted perovskite film growth for high performance solar cells. <i>Applied Physics Letters</i> , 2014 , 105, 183902	3.4	598
57	Visibly transparent polymer solar cells produced by solution processing. <i>ACS Nano</i> , 2012 , 6, 7185-90	16.7	434
56	The optoelectronic role of chlorine in CH ₃ NH ₃ PbI ₃ (Cl)-based perovskite solar cells. <i>Nature Communications</i> , 2015 , 6, 7269	17.4	354
55	Importance of Reducing Vapor Atmosphere in the Fabrication of Tin-Based Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2017 , 139, 836-842	16.4	340
54	Perovskite solar cells: film formation and properties. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 9032-9050	10.3	327
53	Fused silver nanowires with metal oxide nanoparticles and organic polymers for highly transparent conductors. <i>ACS Nano</i> , 2011 , 5, 9877-82	16.7	326
52	The identification and characterization of defect states in hybrid organic-inorganic perovskite photovoltaics. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 112-6	3.6	285
51	Thin Films and Solar Cells Based on Semiconducting Two-Dimensional Ruddlesden-Popper (CH ₃ (CH ₂) ₃ NH ₃) ₂ (CH ₃ NH ₃) _n SnI _{3n+1} Perovskites. <i>ACS Energy Letters</i> , 2017 , 2, 982-990	20.1	274
50	CZTS nanocrystals: a promising approach for next generation thin film photovoltaics. <i>Energy and Environmental Science</i> , 2013 , 6, 2822	35.4	260
49	Nanoscale Joule heating and electromigration enhanced ripening of silver nanowire contacts. <i>ACS Nano</i> , 2014 , 8, 2804-11	16.7	251
48	Overcoming Short-Circuit in Lead-Free CH ₃ NH ₃ SnI ₃ Perovskite Solar Cells via Kinetically Controlled Gas-Solid Reaction Film Fabrication Process. <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 776-82	6.4	242
47	Surface charge and cellular processing of covalently functionalized multiwall carbon nanotubes determine pulmonary toxicity. <i>ACS Nano</i> , 2013 , 7, 2352-68	16.7	232

46	Perovskite Solar Cells Employing Dopant-Free Organic Hole Transport Materials with Tunable Energy Levels. <i>Advanced Materials</i> , 2016 , 28, 440-6	24	217
45	Performance Enhancement of Lead-Free Tin-Based Perovskite Solar Cells with Reducing Atmosphere-Assisted Dispersible Additive. <i>ACS Energy Letters</i> , 2017 , 2, 897-903	20.1	216
44	A dopant-free organic hole transport material for efficient planar heterojunction perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 11940-11947	13	182
43	Pluronic F108 coating decreases the lung fibrosis potential of multiwall carbon nanotubes by reducing lysosomal injury. <i>Nano Letters</i> , 2012 , 12, 3050-61	11.5	142
42	Multilayer Transparent Top Electrode for Solution Processed Perovskite/Cu(In,Ga)(Se,S) ₂ Four Terminal Tandem Solar Cells. <i>ACS Nano</i> , 2015 , 9, 7714-21	16.7	139
41	Integrated perovskite/bulk-heterojunction toward efficient solar cells. <i>Nano Letters</i> , 2015 , 15, 662-8	11.5	129
40	Rational defect passivation of Cu ₂ ZnSn(S,Se) ₄ photovoltaics with solution-processed Cu ₂ ZnSnS ₄ :Na nanocrystals. <i>Journal of the American Chemical Society</i> , 2013 , 135, 15998-6001	16.4	127
39	Solution-processed flexible transparent conductors composed of silver nanowire networks embedded in indium tin oxide nanoparticle matrices. <i>Nano Research</i> , 2012 , 5, 805-814	10	124
38	Multichannel Interdiffusion Driven FASnI Film Formation Using Aqueous Hybrid Salt/Polymer Solutions toward Flexible Lead-Free Perovskite Solar Cells. <i>Advanced Materials</i> , 2017 , 29, 1606964	24	117
37	Silver nanowire composite window layers for fully solution-deposited thin-film photovoltaic devices. <i>Advanced Materials</i> , 2012 , 24, 5499-504	24	111
36	Improving the TiO ₂ electron transport layer in perovskite solar cells using acetylacetonate-based additives. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 9108-9115	13	94
35	Highly Robust Silver Nanowire Network for Transparent Electrode. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 24601-7	9.5	91
34	Efficiency Enhancement of Cu ₂ ZnSn(S,Se) ₄ Solar Cells via Alkali Metals Doping. <i>Advanced Energy Materials</i> , 2016 , 6, 1502386	21.8	91
33	Aspect ratio plays a role in the hazard potential of CeO ₂ nanoparticles in mouse lung and zebrafish gastrointestinal tract. <i>ACS Nano</i> , 2014 , 8, 4450-64	16.7	89
32	The Origin of Lower Hole Carrier Concentration in Methylammonium Tin Halide Films Grown by a Vapor-Assisted Solution Process. <i>ACS Energy Letters</i> , 2017 , 2, 22-28	20.1	82
31	Differences in the Toxicological Potential of 2D versus Aggregated Molybdenum Disulfide in the Lung. <i>Small</i> , 2015 , 11, 5079-87	11	76
30	Weak Electron Phonon Coupling and Deep Level Impurity for High Thermoelectric Performance Pb _{1-x} GaxTe. <i>Advanced Energy Materials</i> , 2018 , 8, 1800659	21.8	75
29	Hexaaqua Metal Complexes for Low-Temperature Formation of Fully Metal Oxide Thin-Film Transistors. <i>Chemistry of Materials</i> , 2015 , 27, 5808-5812	9.6	68

28	Nanoscale Dispersions of Gelled SnO ₂ : Material Properties and Device Applications. <i>Chemistry of Materials</i> , 2013 , 25, 4725-4730	9.6	65
27	Piperazine Suppresses Self-Doping in CsSnI ₃ Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2018 , 1, 4221-4226	6.1	63
26	Unraveling film transformations and device performance of planar perovskite solar cells. <i>Nano Energy</i> , 2015 , 12, 494-500	17.1	61
25	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> , 2017 , 139, 16494-16497	16.4	58
24	In Situ Synthesis of Highly Dispersed and Ultrafine Metal Nanoparticles from Chalcogels. <i>Journal of the American Chemical Society</i> , 2017 , 139, 2900-2903	16.4	55
23	Spatial element distribution control in a fully solution-processed nanocrystals-based 8.6% Cu ₂ ZnSn(S,Se) ₄ device. <i>ACS Nano</i> , 2014 , 8, 9164-72	16.7	46
22	Zero-Dimensional Cs ₂ TeI ₆ Perovskite: Solution-Processed Thick Films with High X-ray Sensitivity. <i>ACS Photonics</i> , 2019 , 6, 196-203	6.3	43
21	Emerging Transparent Conducting Electrodes for Organic Light Emitting Diodes. <i>Electronics (Switzerland)</i> , 2014 , 3, 190-204	2.6	42
20	10.5% efficient polymer and amorphous silicon hybrid tandem photovoltaic cell. <i>Nature Communications</i> , 2015 , 6, 6391	17.4	38
19	Surface-enhanced Raman spectroscopy to probe photoreaction pathways and kinetics of isolated reactants on surfaces: flat versus curved substrates. <i>Nano Letters</i> , 2012 , 12, 5362-8	11.5	38
18	Copper Ion Binding Site in β -Amyloid Peptide. <i>Nano Letters</i> , 2016 , 16, 6282-6289	11.5	32
17	Millisecond-pulsed photonically-annealed tin oxide electron transport layers for efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 24110-24115	13	32
16	Solution-Processed Air-Stable Mesoscopic Selenium Solar Cells. <i>ACS Energy Letters</i> , 2016 , 1, 469-473	20.1	29
15	Modern Processing and Insights on Selenium Solar Cells: The World's First Photovoltaic Device. <i>Advanced Energy Materials</i> , 2019 , 9, 1802766	21.8	27
14	Current-voltage characteristics of fully solution processed high performance CuIn(S,Se) ₂ solar cells: Crossover and red kink. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 120, 642-646	6.4	26
13	Revealing the Dynamics of Hybrid Metal Halide Perovskite Formation via Multimodal In Situ Probes. <i>Advanced Functional Materials</i> , 2020 , 30, 1908337	15.6	25
12	Silver nanowires with semiconducting ligands for low-temperature transparent conductors. <i>Nano Research</i> , 2016 , 9, 392-400	10	25
11	Effect of Tether Conductivity on the Efficiency of Photoisomerization of Azobenzene-Functionalized Molecules on Au{111}. <i>Journal of Physical Chemistry Letters</i> , 2012 , 3, 2388-94	6.4	22

10	Slow thermal equilibration in methylammonium lead iodide revealed by transient mid-infrared spectroscopy. <i>Nature Communications</i> , 2018 , 9, 2792	17.4	21
9	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> , 2020 , 3, 2386-2393	6.1	15
8	Surface Structure and Electron Transfer Dynamics of the Self-Assembly of Cyanide on Au{111}. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 26736-26746	3.8	15
7	Out-of-equilibrium processes in crystallization of organic-inorganic perovskites during spin coating. <i>Nature Communications</i> , 2021 , 12, 5624	17.4	10
6	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> , 2019 , 141, 635-642	16.4	9
5	Hexagons to Ribbons: Flipping Cyanide on Au{111}. <i>Journal of the American Chemical Society</i> , 2016 , 138, 15580-15586	16.4	7
4	Solution-Processed TiO ₂ Nanoparticles as the Window Layer for CuIn(S,Se) ₂ Devices. <i>Advanced Energy Materials</i> , 2012 , 2, 1368-1374	21.8	6
3	Studies of carrier recombination in solution-processed CuIn(S,Se) ₂ through photoluminescence spectroscopy. <i>Applied Physics Letters</i> , 2013 , 102, 063902	3.4	5
2	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> , 2019 , 75, a155-a156	1.7	3
1	Understanding macroscale functionality of metal halide perovskites in terms of nanoscale heterogeneities. <i>JPhys Energy</i> , 2019 , 1, 011002	4.9	3