Xudong Yang

List of Publications by Year in Descending Order

84 papers	10,664 citations	42 h-index	90 g-index
90 ext. papers	11,981 ext. citations	16.7 avg, IF	6.43 L-index

#	Paper	IF	Citations
84	Making Room for Growing Oriented FASnI3 with Large Grains via Cold Precursor Solution. *Advanced Functional Materials*, **2021**, 31, 2100931	15.6	24
83	Stable tin perovskite solar cells developed via additive engineering. *Science China Materials*, **2021**, 64, 2645-2654	7.1	4
82	A Scalable Integrated Dopant-Free Heterostructure to Stabilize Perovskite Solar Cell Modules. *Advanced Energy Materials*, **2021**, 11, 2003301	21.8	22
81	Zwitterions: promising interfacial/doping materials for organic/perovskite solar cells. *New Journal of Chemistry*, **2021**, 45, 15118-15130	3.6	3
80	Stable tin perovskite solar cells enabled by widening the time window for crystallization. *Science China Materials*, **2021**, 64, 1849-1857	7.1	5
79	Reduction of Nonradiative Loss in Inverted Perovskite Solar Cells by Donor–Acceptor Dipoles. *ACS Applied Materials & Interfaces*, **2021**, 13, 44321-44328	9.5	10
78	Efficient and stable tin perovskite solar cells enabled by amorphous-polycrystalline structure. *Nature Communications*, **2020**, 11, 2678	17.4	90
77	Surface-Controlled Oriented Growth of FASnI3 Crystals for Efficient Lead-free Perovskite Solar Cells. *Joule*, **2020**, 4, 902-912	27.8	112
76	Efficient and Stable Tin Perovskite Solar Cells Enabled by Graded Heterostructure of Light-Absorbing Layer. *Solar Rrl*, **2020**, 4, 2000240	7.1	30
75	Large-area perovskite solar cells. *Science Bulletin*, **2020**, 65, 872-875	10.6	29
74	High Electron Affinity Enables Fast Hole Extraction for Efficient Flexible Inverted Perovskite Solar Cells. *Advanced Energy Materials*, **2020**, 10, 1903487	21.8	106
73	Highly efficient tin perovskite solar cells achieved in a wide oxygen concentration range. *Journal of Materials Chemistry A*, **2020**, 8, 2760-2768	13	55
72	Efficient and stable tin-based perovskite solar cells by introducing π-conjugated Lewis base. *Science China Chemistry*, **2020**, 63, 107-115	7.9	104
71	Microstructure Formation and Tailoring of the Intermetallic TiAl Alloy Produced by Direct Laser Deposition. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 82-87	2.3	3
70	Templated growth of FASnI3 crystals for efficient tin perovskite solar cells. *Energy and Environmental Science*, **2020**, 13, 2896-2902	35.4	82
69	Reliable Measurement of Perovskite Solar Cells. *Advanced Materials*, **2019**, 31, e1803231	24	44
68	Efficient and Stable CsPbI Solar Cells via Regulating Lattice Distortion with Surface Organic Terminal Groups. *Advanced Materials*, **2019**, 31, e1900605	24	147

67	Efficient Defect Passivation for Perovskite Solar Cells by Controlling the Electron Density Distribution of Donor-Acceptor Molecules. *Advanced Energy Materials*, **2019**, 9, 1803766	21.8	180
66	Effects of Illumination Direction on the Surface Potential of CHNHPbI Perovskite Films Probed by Kelvin Probe Force Microscopy. *ACS Applied Materials & Interfaces*, **2019**, 11, 14044-14050	9.5	17
65	Stabilizing heterostructures of soft perovskite semiconductors. *Science*, **2019**, 365, 687-691	33.3	281
64	Highly Stable and Efficient FASnI -Based Perovskite Solar Cells by Introducing Hydrogen Bonding. *Advanced Materials*, **2019**, 31, e1903721	24	151
63	Efficient Perovskite Solar Cell Modules with High Stability Enabled by Iodide Diffusion Barriers. *Joule*, **2019**, 3, 2748-2760	27.8	105
62	Improving the Performance of Inverted Formamidinium Tin Iodide Perovskite Solar Cells by Reducing the Energy-Level Mismatch. *ACS Energy Letters*, **2018**, 3, 1116-1121	20.1	74
61	Ligand-Free, Highly Dispersed NiOx Nanocrystal for Efficient, Stable, Low-Temperature Processable Perovskite Solar Cells. *Solar Rrl*, **2018**, 2, 1800004	7.1	40
60	A metal-free visible light active photo-electro-Fenton-like cell for organic pollutants degradation. *Applied Catalysis B: Environmental*, **2018**, 229, 211-217	21.8	39
59	Control of Electrical Potential Distribution for High-Performance Perovskite Solar Cells. *Joule*, **2018** , 2, 296-306	27.8	90
58	Low-Temperature Soft-Cover-Assisted Hydrolysis Deposition of Large-Scale TiO Layer for Efficient Perovskite Solar Modules. *Nano-Micro Letters*, **2018**, 10, 49	19.5	10
57	Toward Long-Term Stable and Highly Efficient Perovskite Solar Cells via Effective Charge Transporting Materials. *Advanced Energy Materials*, **2018**, 8, 1800249	21.8	70
56	Thermally Stable MAPbI Perovskite Solar Cells with Efficiency of 19.19% and Area over 1 cm achieved by Additive Engineering. *Advanced Materials*, **2017**, 29, 1701073	24	447
55	Effect of thermal-convection-induced defects on the performance of perovskite solar cells. *Applied Physics Express*, **2017**, 10, 075502	2.4	6
54	Accurate and fast evaluation of perovskite solar cells with least hysteresis. *Applied Physics Express*, **2017**, 10, 076601	2.4	11
53	Diffusion engineering of ions and charge carriers for stable efficient perovskite solar cells. *Nature Communications*, **2017**, 8, 15330	17.4	290
52	Stable Inverted Planar Perovskite Solar Cells with Low-Temperature-Processed Hole-Transport Bilayer. *Advanced Energy Materials*, **2017**, 7, 1700763	21.8	97
51	A solvent- and vacuum-free route to large-area perovskite films for efficient solar modules. *Nature*, **2017**, 550, 92-95	50.4	510
50	Vertical recrystallization for highly efficient and stable formamidinium-based inverted-structure perovskite solar cells. *Energy and Environmental Science*, **2017**, 10, 1942-1949	35.4	309

49	Low-Temperature Soft-Cover Deposition of Uniform Large-Scale Perovskite Films for High-Performance Solar Cells. *Advanced Materials*, **2017**, 29, 1701440	24	61
48	Cost-Performance Analysis of Perovskite Solar Modules. *Advanced Science*, **2017**, 4, 1600269	13.6	238
47	Perovskite solar cells with 18.21% efficiency and area over 1 cm2 fabricated by heterojunction engineering. *Nature Energy*, **2016**, 1,	62.3	482
46	Soft-cover deposition of scaling-up uniform perovskite thin films for high cost-performance solar cells. *Energy and Environmental Science*, **2016**, 9, 2295-2301	35.4	144
45	Annealing-free perovskite films by instant crystallization for efficient solar cells. *Journal of Materials Chemistry A*, **2016**, 4, 8548-8553	13	87
44	Enhanced Stability of Perovskite Solar Cells through Corrosion-Free Pyridine Derivatives in Hole-Transporting Materials. *Advanced Materials*, **2016**, 28, 10738-10743	24	108
43	Efficient and stable large-area perovskite solar cells with inorganic charge extraction layers. *Science* , **2015**, 350, 944-8	33.3	1732
42	Consecutive Morphology Controlling Operations for Highly Reproducible Mesostructured Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 20707-13	9.5	39
41	Hybrid interfacial layer leads to solid performance improvement of inverted perovskite solar cells. *Energy and Environmental Science*, **2015**, 8, 629-640	35.4	249
40	Fullerene-Structured MoSe2 Hollow Spheres Anchored on Highly Nitrogen-Doped Graphene as a Conductive Catalyst for Photovoltaic Applications. *Scientific Reports*, **2015**, 5, 13214	4.9	38
39	High-Quality Mixed-Organic-Cation Perovskites from a Phase-Pure Non-stoichiometric Intermediate (FAI)1- x -PbI2 for Solar Cells. *Advanced Materials*, **2015**, 27, 4918-23	24	132
38	Selective Deposition of Insulating Metal Oxide in Perovskite Solar Cells with Enhanced Device Performance. *ChemSusChem*, **2015**, 8, 2625-9	8.3	9
37	A hybrid catalyst composed of reduced graphene oxide/Cu2S quantum dots as a transparent counter electrode for dye sensitized solar cells. *RSC Advances*, **2015**, 5, 9075-9078	3.7	16
36	Key issues in highly efficient perovskite solar cells. *Wuli Xuebao/Acta Physica Sinica*, **2015**, 64, 038404	0.6	12
35	High-Performance, Transparent, Dye-Sensitized Solar Cells for See-Through Photovoltaic Windows. *Advanced Energy Materials*, **2014**, 4, 1301966	21.8	66
34	Novel Near-Infrared Squaraine Sensitizers for Stable and Efficient Dye-Sensitized Solar Cells. *Advanced Functional Materials*, **2014**, 24, 3059-3066	15.6	68
33	Interfacial engineering for dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 5167	13	58
32	Shielding effects of additives in a cobalt(II/III) redox electrolyte: toward higher open-circuit photovoltages in dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 10532	13	19

31	Band alignment by ternary crystalline potential-tuning interlayer for efficient electron injection in quantum dot-sensitized solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 7004-7014	13	23
30	Retarding the crystallization of PbI2 for highly reproducible planar-structured perovskite solar cells via sequential deposition. *Energy and Environmental Science*, **2014**, 7, 2934-2938	35.4	728
29	A dopant-free hole-transporting material for efficient and stable perovskite solar cells. *Energy and Environmental Science*, **2014**, 7, 2963-2967	35.4	593
28	A quasi core–shell nitrogen-doped graphene/cobalt sulfide conductive catalyst for highly efficient dye-sensitized solar cells. *Energy and Environmental Science*, **2014**, 7, 2637-2641	35.4	177
27	Highly compact TiO2layer for efficient hole-blocking in perovskite solar cells. *Applied Physics Express*, **2014**, 7, 052301	2.4	181
26	Tin oxide microspheres with exposed {101} facets for dye-sensitized solar cells: enhanced photocurrent and photovoltage. *ChemSusChem*, **2014**, 7, 172-8	8.3	12
25	Efficient metal-free sensitizers bearing circle chain embracing π-spacers for dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 10889	13	31
24	Coordinated shifts of interfacial energy levels: insight into electron injection in highly efficient dye-sensitized solar cells. *Energy and Environmental Science*, **2013**, 6, 3637	35.4	31
23	Highly efficient dye-sensitized solar cells: progress and future challenges. *Energy and Environmental Science*, **2013**, 6, 1443	35.4	549
22	Improvement of spectral response by co-sensitizers for high efficiency dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 4812	13	68
21	Reliable evaluation of dye-sensitized solar cells. *Energy and Environmental Science*, **2013**, 6, 54-66	35.4	110
20	A Near-Infrared cis-Configured Squaraine Co-Sensitizer for High-Efficiency Dye-Sensitized Solar Cells. *Advanced Functional Materials*, **2013**, 23, 3782-3789	15.6	57
19	Circle chain embracing donor-acceptor organic dye: simultaneous improvement of photocurrent and photovoltage for dye-sensitized solar cells. *Chemical Communications*, **2013**, 49, 7587-9	5.8	36
18	Cosensitization of Ruthenium–Polypyridyl Dyes with Organic Dyes in Dye-sensitized Solar Cells. *Chemistry Letters*, **2013**, 42, 1328-1335	1.7	28
17	High-efficiency dye-sensitized solar cell with a novel co-adsorbent. *Energy and Environmental Science*, **2012**, 5, 6057	35.4	617
16	A New Factor Affecting the Performance of Dye-Sensitized Solar Cells in the Presence of 4-tert-Butylpyridine. *Applied Physics Express*, **2012**, 5, 042303	2.4	10
15	Directly Determine an Additive-Induced Shift in Quasi-Fermi Level of TiO2Films in Dye-Sensitized Solar Cells. *Japanese Journal of Applied Physics*, **2012**, 51, 10NE15	1.4	3
14	Effects of 4-tert-butylpyridine on the quasi-Fermi levels of TiO2 films in the presence of different cations in dye-sensitized solar cells. *Physical Chemistry Chemical Physics*, **2011**, 13, 19310-3	3.6	29

13	Sequential energy and electron transfer in polyisocyanopeptide-based multichromophoric arrays. *Journal of Physical Chemistry B*, **2011**, 115, 1590-600	3.4	16
12	Entirely solution-processed write-once-read-many-times memory devices and their operation mechanism. *Organic Electronics*, **2011**, 12, 1271-1274	3.5	28
11	Effect of 4-tert-Butylpyridine on the Quasi-Fermi Level of Dye-Sensitized TiO2Films. *Applied Physics Express*, **2011**, 4, 042301	2.4	26
10	Saturation, Relaxation, and Dissociation of Excited Triplet Excitons in Conjugated Polymers. *Advanced Materials*, **2009**, 21, 916-919	24	14
9	Rapid photoluminescence quenching in GaInNAs quantum wells at low temperature. *Journal of Luminescence*, **2007**, 122-123, 188-190	3.8	1
8	Exciton localization due to isoelectronic substitution in ZnSTe. *Journal of Luminescence*, **2007**, 122-123, 402-404	3.8	2
7	Determination of the triplet excited-state absorption cross section in a polyfluorene by energy transfer from a phosphorescent metal complex. *Physical Review B*, **2007**, 76,	3.3	27
6	Nonradiative recombination effect on photoluminescence decay dynamics in GaInNAs□GaAs quantum wells. *Applied Physics Letters*, **2006**, 88, 011912	3.4	7
5	Lifetime study of N impurity states in GaAs1⊠Nx (x=0.1%) under hydrostatic pressure. *Applied Physics Letters*, **2006**, 88, 201917	3.4	2
4	Quasi-aligned ZnO nanotubes grown on Si substrates. *Applied Physics Letters*, **2005**, 87, 093110	3.4	53
3	Recombination kinetics of Te isoelectronic centers in ZnSTe. *Applied Physics Letters*, **2005**, 86, 052107	3.4	2
2	Sulfur-induced exciton localization in Te-rich ZnSTe alloy. *Applied Physics Letters*, **2005**, 86, 162108	3.4	1
1	Crystal-array-assisted growth of perovskite absorption layer for efficient and stable solar cell. *Energy and Environmental Science*,	35.4	16