Xudong Yang

List of Publications by Year
in descending order

88 papers	13,344 citations	44042 48 h-index	48277 88 g-index
90 all docs	90 docs citations	90 times ranked	11886 citing authors

#	Article	IF	Citations
1	Efficient and stable large-area perovskite solar cells with inorganic charge extraction layers. Science, 2015, 350, 944-948.	6.0	2,007
2	Retarding the crystallization of PbI₂for highly reproducible planar-structured perovskite solar cells via sequential deposition. Energy and Environmental Science, 2014, 7, 2934-2938.	15.6	807
3	A dopant-free hole-transporting material for efficient and stable perovskite solar cells. Energy and Environmental Science, 2014, 7, 2963-2967.	15.6	668
4	High-efficiency dye-sensitized solar cell with a novel co-adsorbent. Energy and Environmental Science, 2012, 5, 6057.	15.6	655
5	A solvent- and vacuum-free route to large-area perovskite films for efficient solar modules. Nature, 2017, 550, 92-95.	13.7	618
6	Highly efficient dye-sensitized solar cells: progress and future challenges. Energy and Environmental Science, 2013, 6, 1443.	15.6	596
7	Perovskite solar cells with 18.21% efficiency andÂarea over 1â€‰cm2 fabricated by heterojunctionÂengineering. Nature Energy, 2016, 1, .	19.8	555
8	Thermally Stable MAPbI₃ Perovskite Solar Cells with Efficiency of 19.19% and Area over 1 cm² achieved by Additive Engineering. Advanced Materials, 2017, 29, 1701073.	11.1	541
9	Stabilizing heterostructures of soft perovskite semiconductors. Science, 2019, 365, 687-691.	6.0	447
10	Vertical recrystallization for highly efficient and stable formamidinium-based inverted-structure perovskite solar cells. Energy and Environmental Science, 2017, 10, 1942-1949.	15.6	402
11	Diffusion engineering of ions and charge carriers for stable efficient perovskite solar cells. Nature Communications, 2017, 8, 15330.	5.8	356
12	Costâ€Performance Analysis of Perovskite Solar Modules. Advanced Science, 2017, 4, 1600269.	5.6	345
13	Hybrid interfacial layer leads to solid performance improvement of inverted perovskite solar cells. Energy and Environmental Science, 2015, 8, 629-640.	15.6	285
14	Efficient Defect Passivation for Perovskite Solar Cells by Controlling the Electron Density Distribution of Donorâ€Ï€â€Acceptor Molecules. Advanced Energy Materials, 2019, 9, 1803766.	10.2	280
15	Highly Stable and Efficient FASnI₃â€Based Perovskite Solar Cells by Introducing Hydrogen Bonding. Advanced Materials, 2019, 31, e1903721.	11.1	266
16	High Electron Affinity Enables Fast Hole Extraction for Efficient Flexible Inverted Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903487.	10.2	210
17	Efficient and Stable CsPbI₃ Solar Cells via Regulating Lattice Distortion with Surface Organic Terminal Groups. Advanced Materials, 2019, 31, e1900605.	11.1	209
18	Surface-Controlled Oriented Growth of FASnI3 Crystals for Efficient Lead-free Perovskite Solar Cells. Joule, 2020, 4, 902-912.	11.7	208

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19	Highly compact TiO₂layer for efficient hole-blocking in perovskite solar cells. Applied Physics Express, 2014, 7, 052301.	1.1	199
20	A quasi coreâ€“shell nitrogen-doped graphene/cobalt sulfide conductive catalyst for highly efficient dye-sensitized solar cells. Energy and Environmental Science, 2014, 7, 2637-2641.	15.6	185
21	Soft-cover deposition of scaling-up uniform perovskite thin films for high cost-performance solar cells. Energy and Environmental Science, 2016, 9, 2295-2301.	15.6	173
22	Efficient Perovskite Solar Cell Modules with High Stability Enabled by Iodide Diffusion Barriers. Joule, 2019, 3, 2748-2760.	11.7	167
23	Templated growth of FASnI₃ crystals for efficient tin perovskite solar cells. Energy and Environmental Science, 2020, 13, 2896-2902.	15.6	165
24	Efficient and stable tin-based perovskite solar cells by introducing Ï€-conjugated Lewis base. Science China Chemistry, 2020, 63, 107-115.	4.2	160
25	Enhanced Stability of Perovskite Solar Cells through Corrosionâ€Free Pyridine Derivatives in Holeâ€Transporting Materials. Advanced Materials, 2016, 28, 10738-10743.	11.1	147
26	Efficient and stable tin perovskite solar cells enabled by amorphous-polycrystalline structure. Nature Communications, 2020, 11, 2678.	5.8	143
27	Highâ€Quality Mixedâ€Organicâ€Cation Perovskites from a Phaseâ€Pure Nonâ€stoichiometric Intermediate (FAI)_{1â^’}<i>_x</i>â€PbI₂ for Solar Cells. Advanced Materials, 2015, 27, 4918-4923.	11.1	140
28	Control of Electrical Potential Distribution for High-Performance Perovskite Solar Cells. Joule, 2018, 2, 296-306.	11.7	138
29	Stable Inverted Planar Perovskite Solar Cells with Lowâ€Temperatureâ€Processed Holeâ€Transport Bilayer. Advanced Energy Materials, 2017, 7, 1700763.	10.2	115
30	Reliable evaluation of dye-sensitized solar cells. Energy and Environmental Science, 2013, 6, 54-66.	15.6	114
31	Improving the Performance of Inverted Formamidinium Tin Iodide Perovskite Solar Cells by Reducing the Energy-Level Mismatch. ACS Energy Letters, 2018, 3, 1116-1121.	8.8	105
32	Annealing-free perovskite films by instant crystallization for efficient solar cells. Journal of Materials Chemistry A, 2016, 4, 8548-8553.	5.2	103
33	Highâ€Performance, Transparent, Dyeâ€Sensitized Solar Cells for Seeâ€Through Photovoltaic Windows. Advanced Energy Materials, 2014, 4, 1301966.	10.2	88
34	Toward Longâ€Term Stable and Highly Efficient Perovskite Solar Cells via Effective Charge Transporting Materials. Advanced Energy Materials, 2018, 8, 1800249.	10.2	85
35	Highly efficient tin perovskite solar cells achieved in a wide oxygen concentration range. Journal of Materials Chemistry A, 2020, 8, 2760-2768.	5.2	85
36	Novel Nearâ€Infrared Squaraine Sensitizers for Stable and Efficient Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2014, 24, 3059-3066.	7.8	77

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37	Improvement of spectral response by co-sensitizers for high efficiency dye-sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 4812.	5.2	76
38	Lowâ€Temperature Softâ€Cover Deposition of Uniform Largeâ€Scale Perovskite Films for Highâ€Performance Solar Cells. Advanced Materials, 2017, 29, 1701440.	11.1	74
39	In situ growth of graphene on both sides of a Cuâ€“Ni alloy electrode for perovskite solar cells with improved stability. Nature Energy, 2022, 7, 520-527.	19.8	68
40	Reliable Measurement of Perovskite Solar Cells. Advanced Materials, 2019, 31, e1803231.	11.1	62
41	Crystal-array-assisted growth of a perovskite absorption layer for efficient and stable solar cells. Energy and Environmental Science, 2022, 15, 1078-1085.	15.6	62
42	A Nearâ€Infrared <i>cis</i>â€Configured Squaraine Coâ€Sensitizer for Highâ€Efficiency Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2013, 23, 3782-3789.	7.8	59
43	Interfacial engineering for dye-sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 5167.	5.2	59
44	Ligandâ€Free, Highly Dispersed NiO_x Nanocrystal for Efficient, Stable, Lowâ€Temperature Processable Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800004.	3.1	58
45	A metal-free visible light active photo-electro-Fenton-like cell for organic pollutants degradation. Applied Catalysis B: Environmental, 2018, 229, 211-217.	10.8	58
46	Making Room for Growing Oriented FASnI₃ with Large Grains via Cold Precursor Solution. Advanced Functional Materials, 2021, 31, 2100931.	7.8	57
47	Quasi-aligned ZnO nanotubes grown on Si substrates. Applied Physics Letters, 2005, 87, 093110.	1.5	55
48	Efficient and Stable Tin Perovskite Solar Cells Enabled by Graded Heterostructure of Lightâ€Absorbing Layer. Solar Rrl, 2020, 4, 2000240.	3.1	53
49	Fullerene-Structured MoSe2 Hollow Spheres Anchored on Highly Nitrogen-Doped Graphene as a Conductive Catalyst for Photovoltaic Applications. Scientific Reports, 2015, 5, 13214.	1.6	46
50	Consecutive Morphology Controlling Operations for Highly Reproducible Mesostructured Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 20707-20713.	4.0	43
51	A Scalable Integrated Dopantâ€Free Heterostructure to Stabilize Perovskite Solar Cell Modules. Advanced Energy Materials, 2021, 11, 2003301.	10.2	43
52	Circle chain embracing donorâ€“acceptor organic dye: simultaneous improvement of photocurrent and photovoltage for dye-sensitized solar cells. Chemical Communications, 2013, 49, 7587.	2.2	38
53	Effects of Illumination Direction on the Surface Potential of CH₃NH₃PbI₃ Perovskite Films Probed by Kelvin Probe Force Microscopy. ACS Applied Materials & Interfaces, 2019, 11, 14044-14050.	4.0	34
54	Large-area perovskite solar cells. Science Bulletin, 2020, 65, 872-875.	4.3	34

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55	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.	1.3	33
56	Efficient metal-free sensitizers bearing circle chain embracing Ï€-spacers for dye-sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 10889.	5.2	31
57	Coordinated shifts of interfacial energy levels: insight into electron injection in highly efficient dye-sensitized solar cells. Energy and Environmental Science, 2013, 6, 3637.	15.6	31
58	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, .	1.1	30
59	Cosensitization of Rutheniumâ€“Polypyridyl Dyes with Organic Dyes in Dye-sensitized Solar Cells. Chemistry Letters, 2013, 42, 1328-1335.	0.7	30
60	Reduction of Nonradiative Loss in Inverted Perovskite Solar Cells by Donorâ^'Ï€â€"Acceptor Dipoles. ACS Applied Materials & Interfaces, 2021, 13, 44321-44328.	4.0	30
61	Entirely solution-processed write-once-read-many-times memory devices and their operation mechanism. Organic Electronics, 2011, 12, 1271-1274.	1.4	28
62	Effect of 4-<i>tert</i>-Butylpyridine on the Quasi-Fermi Level of Dye-Sensitized TiO₂Films. Applied Physics Express, 2011, 4, 042301.	1.1	28
63	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.	5.2	26
64	Recombination property of nitrogen-acceptor-bound states in ZnO. Journal of Applied Physics, 2006, 99, 046101.	1.1	25
65	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.	5.2	21
66	Sequential Energy and Electron Transfer in Polyisocyanopeptide-Based Multichromophoric Arrays. Journal of Physical Chemistry B, 2011, 115, 1590-1600.	1.2	16
67	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.	1.7	16
68	Saturation, Relaxation, and Dissociation of Excited Triplet Excitons in Conjugated Polymers. Advanced Materials, 2009, 21, 916-919.	11.1	15
69	Zwitterions: promising interfacial/doping materials for organic/perovskite solar cells. New Journal of Chemistry, 2021, 45, 15118-15130.	1.4	15
70	Stable tin perovskite solar cells developed via additive engineering. Science China Materials, 2021, 64, 2645-2654.	3.5	15
71	Realizing superior strength-ductility combination in dual-phase AlFeCoNiV high-entropy alloy through composition and microstructure design. Materials Research Letters, 2022, 10, 736-743.	4.1	15
72	Tin Oxide Microspheres with Exposed {101} Facets for Dyeâ€sensitized Solar Cells: Enhanced Photocurrent and Photovoltage. ChemSusChem, 2014, 7, 172-178.	3.6	14

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73	Low-Temperature Soft-Cover-Assisted Hydrolysis Deposition of Large-Scale TiO2 Layer for Efficient Perovskite Solar Modules. Nano-Micro Letters, 2018, 10, 49.	14.4	14
74	Accurate and fast evaluation of perovskite solar cells with least hysteresis. Applied Physics Express, 2017, 10, 076601.	1.1	12
75	Key issues in highly efficient perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 038404.	0.2	12
76	A New Factor Affecting the Performance of Dye-Sensitized Solar Cells in the Presence of 4-tert-Butylpyridine. Applied Physics Express, 2012, 5, 042303.	1.1	10
77	Selective Deposition of Insulating Metal Oxide in Perovskite Solar Cells with Enhanced Device Performance. ChemSusChem, 2015, 8, 2625-2629.	3.6	10
78	Stable tin perovskite solar cells enabled by widening the time window for crystallization. Science China Materials, 2021, 64, 1849-1857.	3.5	10
79	Nonradiative recombination effect on photoluminescence decay dynamics in GaInNAsâˆ•GaAs quantum wells. Applied Physics Letters, 2006, 88, 011912.	1.5	7
80	Effect of thermal-convection-induced defects on the performance of perovskite solar cells. Applied Physics Express, 2017, 10, 075502.	1.1	7
81	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.	1.1	7
82	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.	0.8	4
83	Recombination kinetics of Te isoelectronic centers in ZnSTe. Applied Physics Letters, 2005, 86, 052107.	1.5	2
84	Lifetime study of N impurity states in GaAs1âˆ’xNx (x=0.1%) under hydrostatic pressure. Applied Physics Letters, 2006, 88, 201917.	1.5	2
85	Exciton localization due to isoelectronic substitution in ZnSTe. Journal of Luminescence, 2007, 122-123, 402-404.	1.5	2
86	Sulfur-induced exciton localization in Te-rich ZnSTe alloy. Applied Physics Letters, 2005, 86, 162108.	1.5	1
87	Rapid photoluminescence quenching in GaInNAs quantum wells at low temperature. Journal of Luminescence, 2007, 122-123, 188-190.	1.5	1
88	Directly Determine an Additive-Induced Shift in Quasi-Fermi Level of TiO₂ Films in Dye-Sensitized Solar Cells. Japanese Journal of Applied Physics, 2012, 51, 10NE15.	0.8	1