Yan Jiang

List of Publications by Year
in descending order

42 papers	4,219 citations	201674 27 h-index	276875 41 g-index
42 all docs	42 docs citations	42 times ranked	5561 citing authors

#	Article	IF	Citations
1	Accelerated degradation of methylammonium lead iodide perovskites induced by exposure to iodine vapour. Nature Energy, 2017, 2, .	39.5	491
2	Photodecomposition and thermal decomposition in methylammonium halide lead perovskites and inferred design principles to increase photovoltaic device stability. Journal of Materials Chemistry A, 2018, 6, 9604-9612.	10.3	437
3	Reduction of lead leakage from damaged lead halide perovskite solar modules using self-healing polymer-based encapsulation. Nature Energy, 2019, 4, 585-593.	39.5	327
4	A holistic approach to interface stabilization for efficient perovskite solar modules with over 2,000-hour operational stability. Nature Energy, 2020, 5, 596-604.	39.5	274
5	Enhancing Optical, Electronic, Crystalline, and Morphological Properties of Cesium Lead Halide by Mn Substitution forÂHighâ€Stability Allâ€Inorganic Perovskite Solar Cells withÂCarbon Electrodes. Advanced Energy Materials, 2018, 8, 1800504.	19.5	272
6	Chemical vapor deposition grown formamidinium perovskite solar modules with high steady state power and thermal stability. Journal of Materials Chemistry A, 2016, 4, 13125-13132.	10.3	169
7	Highly Efficient and Stable Perovskite Solar Cells via Modification of Energy Levels at the Perovskite/Carbon Electrode Interface. Advanced Materials, 2019, 31, e1804284.	21.0	161
8	Combination of Hybrid CVD and Cation Exchange for Upscaling Csâ€Substituted Mixed Cation Perovskite Solar Cells with High Efficiency and Stability. Advanced Functional Materials, 2018, 28, 1703835.	14.9	158
9	Post-annealing of MAPbI₃ perovskite films with methylamine for efficient perovskite solar cells. Materials Horizons, 2016, 3, 548-555.	12.2	141
10	Improved Efficiency and Stability of Perovskite Solar Cells Induced by Cï£¾O Functionalized Hydrophobic Ammoniumâ€Based Additives. Advanced Materials, 2018, 30, 1703670.	21.0	132
11	Hierarchical Nanowire Arrays as Three-Dimensional Fractal Nanobiointerfaces for High Efficient Capture of Cancer Cells. Nano Letters, 2016, 16, 766-772.	9.1	122
12	ITO@Cu₂S Tunnel Junction Nanowire Arrays as Efficient Counter Electrode for Quantum-Dot-Sensitized Solar Cells. Nano Letters, 2014, 14, 365-372.	9.1	118
13	Scalable Fabrication of Stable High Efficiency Perovskite Solar Cells and Modules Utilizing Room Temperature Sputtered SnO₂ Electron Transport Layer. Advanced Functional Materials, 2019, 29, 1806779.	14.9	118
14	Methylammonium Lead Bromide Perovskite Light-Emitting Diodes by Chemical Vapor Deposition. Journal of Physical Chemistry Letters, 2017, 8, 3193-3198.	4.6	113
15	Hybrid chemical vapor deposition enables scalable and stable Cs-FA mixed cation perovskite solar modules with a designated area of 91.8 cm² approaching 10% efficiency. Journal of Materials Chemistry A, 2019, 7, 6920-6929.	10.3	112
16	Gas-solid reaction based over one-micrometer thick stable perovskite films for efficient solar cells and modules. Nature Communications, 2018, 9, 3880.	12.8	109
17	Physical vapor deposition of amorphous MoS₂ nanosheet arrays on carbon cloth for highly reproducible large-area electrocatalysts for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2015, 3, 19277-19281.	10.3	97
18	Boosting the Open Circuit Voltage and Fill Factor of QDSSCs Using Hierarchically Assembled ITO@Cu₂S Nanowire Array Counter Electrodes. Nano Letters, 2015, 15, 3088-3095.	9.1	86

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19	In situ nitrogen-doped nanoporous carbon nanocables as an efficient metal-free catalyst for oxygen reduction reaction. Journal of Materials Chemistry A, 2014, 2, 10154.	10.3	73
20	Mitigation of Vacuum and Illumination-Induced Degradation in Perovskite Solar Cells by Structure Engineering. Joule, 2020, 4, 1087-1103.	24.0	69
21	Engineering Interface Structure to Improve Efficiency and Stability of Organometal Halide Perovskite Solar Cells. Journal of Physical Chemistry B, 2018, 122, 511-520.	2.6	68
22	Negligibleâ€Pbâ€Waste and Upscalable Perovskite Deposition Technology for Highâ€Operationalâ€Stability Perovskite Solar Modules. Advanced Energy Materials, 2019, 9, 1803047.	19.5	68
23	Nearâ€Infraredâ€Transparent Perovskite Solar Cells and Perovskiteâ€Based Tandem Photovoltaics. Small Methods, 2020, 4, 2000395.	8.6	63
24	Electrical Loss Management by Molecularly Manipulating Dopantâ€free Poly(3â€hexylthiophene) towards 16.93â€‰% CsPbI₂Br Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 16388-16393.	13.8	57
25	High-Mobility In₂O₃:H Electrodes for Four-Terminal Perovskite/CuInSe₂ Tandem Solar Cells. ACS Nano, 2020, 14, 7502-7512.	14.6	54
26	Application of Methylamine Gas in Fabricating Organicâ€“Inorganic Hybrid Perovskite Solar Cells. Energy Technology, 2017, 5, 1750-1761.	3.8	46
27	Perovskite solar cells by vapor deposition based and assisted methods. Applied Physics Reviews, 2022, 9, .	11.3	33
28	Benchmarking Chemical Stability of Arbitrarily Mixed 3D Hybrid Halide Perovskites for Solar Cell Applications. Small Methods, 2018, 2, 1800242.	8.6	26
29	Engineering the Interfaces of ITO@Cu₂S Nanowire Arrays toward Efficient and Stable Counter Electrodes for Quantum-Dot-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 15448-15455.	8.0	24
30	Revealing the perovskite formation kinetics during chemical vapour deposition. Journal of Materials Chemistry A, 2020, 8, 21973-21982.	10.3	24
31	Engineering inorganic lead halide perovskite deposition toward solar cells with efficiency approaching 20%. Aggregate, 2021, 2, 66-83.	9.9	24
32	The influence of secondary solvents on the morphology of a spiro-MeOTAD hole transport layer for lead halide perovskite solar cells. Journal Physics D: Applied Physics, 2018, 51, 294001.	2.8	23
33	Metal halide perovskite solar cells by modified chemical vapor deposition. Journal of Materials Chemistry A, 2021, 9, 22759-22780.	10.3	22
34	Regulating the crystalline phase of intermediate films enables FA_{1âˆ’<i>x</i>}MA_{<i>x</i>}PbI₃ perovskite solar cells with efficiency over 22%. Journal of Materials Chemistry A, 2021, 9, 24064-24070.	10.3	20
35	Hole transporting materials in inorganic CsPbI3âˆ’Br solar cells: Fundamentals, criteria and opportunities. Materials Today, 2022, 52, 250-268.	14.2	20
36	Electrical Loss Management by Molecularly Manipulating Dopantâ€free Poly(3â€hexylthiophene) towards 16.93â€‰% CsPbI₂Br Solar Cells. Angewandte Chemie, 2021, 133, 16524-16529.	2.0	18

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37	Highly Boosted Microbial Extracellular Electron Transfer by Semiconductor Nanowire Array with Suitable Energy Level. Advanced Functional Materials, 2018, 28, 1707408.	14.9	17
38	Metal halide perovskite-based flexible tandem solar cells: next-generation flexible photovoltaic technology. Materials Chemistry Frontiers, 2021, 5, 4833-4850.	5.9	15
39	Strain relaxation and domain enlargement<i>via</i>phase transition towards efficient CsPbI₂Br solar cells. Journal of Materials Chemistry A, 2022, 10, 3513-3521.	10.3	11
40	Largeâ€Area Perovskite Solar Modules: Combination of Hybrid CVD and Cation Exchange for Upscaling Csâ€Substituted Mixed Cation Perovskite Solar Cells with High Efficiency and Stability (Adv. Funct.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	14.9	4
41	Carbon-free Cu2ZnSn(S,Se)4 film prepared via a non-hydrazine route. Science China Chemistry, 2014, 57, 1552-1558.	8.2	3
42	Up-Scaling of Organic-Inorganic Hybrid Perovskite Solar Cells and Modules. , 0, , .		0