Yaohong Zhang

List of Publications by Year
in descending order

65 papers	4,099 citations	136740 32 h-index	114278 63 g-index
69 all docs	69 docs citations	69 times ranked	5833 citing authors

#	Article	IF	Citations
1	Highly Luminescent Phase-Stable CsPbI₃ Perovskite Quantum Dots Achieving Near 100% Absolute Photoluminescence Quantum Yield. ACS Nano, 2017, 11, 10373-10383.	7.3	748
2	Colloidal Synthesis of Air-Stable Alloyed CsSn_{1â€“<i>x</i>}Pb_{<i>x</i>}I₃ Perovskite Nanocrystals for Use in Solar Cells. Journal of the American Chemical Society, 2017, 139, 16708-16719.	6.6	314
3	Mixed Snâ€“Ge Perovskite for Enhanced Perovskite Solar Cell Performance in Air. Journal of Physical Chemistry Letters, 2018, 9, 1682-1688.	2.1	206
4	Boosting Photocatalytic CO₂ Reduction on CsPbBr₃ Perovskite Nanocrystals by Immobilizing Metal Complexes. Chemistry of Materials, 2020, 32, 1517-1525.	3.2	197
5	Allâ€Inorganic CsPb_{1âˆ’<i>x</i>}Ge_{<i>x</i>}I₂Br Perovskite with Enhanced Phase Stability and Photovoltaic Performance. Angewandte Chemie - International Edition, 2018, 57, 12745-12749.	7.2	157
6	A multi-objective optimization-based layer-by-layer blade-coating approach for organic solar cells: rational control of vertical stratification for high performance. Energy and Environmental Science, 2019, 12, 3118-3132.	15.6	142
7	Gâ€“C3N4/BiVO4 composites with enhanced and stable visible light photocatalytic activity. Journal of Alloys and Compounds, 2014, 590, 9-14.	2.8	124
8	GeI₂ Additive for High Optoelectronic Quality CsPbI₃ Quantum Dots and Their Application in Photovoltaic Devices. Chemistry of Materials, 2019, 31, 798-807.	3.2	112
9	Effect of the conduction band offset on interfacial recombination behavior of the planar perovskite solar cells. Nano Energy, 2018, 53, 17-26.	8.2	110
10	Tinâ€Lead Perovskite Fabricated via Ethylenediamine Interlayer Guides to the Solar Cell Efficiency of 21.74%. Advanced Energy Materials, 2021, 11, 2101069.	10.2	110
11	Bimetallic alloy nanocrystals encapsulated in ZIF-8 for synergistic catalysis of ethylene oxidative degradation. Chemical Communications, 2014, 50, 10115.	2.2	106
12	Additive Engineering to Grow Micronâ€Sized Grains for Stable High Efficiency Perovskite Solar Cells. Advanced Science, 2019, 6, 1901241.	5.6	93
13	The optical and electrochemical properties of CdS/CdSe co-sensitized TiO2 solar cells prepared by successive ionic layer adsorption and reaction processes. Solar Energy, 2012, 86, 964-971.	2.9	80
14	Ultrafast Electron Injection from Photoexcited Perovskite CsPbI₃ QDs into TiO₂ Nanoparticles with Injection Efficiency near 99%. Journal of Physical Chemistry Letters, 2018, 9, 294-297.	2.1	75
15	Octadecylamineâ€Functionalized Singleâ€Walled Carbon Nanotubes for Facilitating the Formation of a Monolithic Perovskite Layer and Stable Solar Cells. Advanced Functional Materials, 2018, 28, 1705545.	7.8	73
16	Hindered Formation of Photoinactive Î´-FAPbI₃ Phase and Hysteresis-Free Mixed-Cation Planar Heterojunction Perovskite Solar Cells with Enhanced Efficiency via Potassium Incorporation. Journal of Physical Chemistry Letters, 2018, 9, 2113-2120.	2.1	72
17	Multiple-Anchoring Triphenylamine Dyes for Dye-Sensitized Solar Cell Application. Journal of Physical Chemistry C, 2014, 118, 8756-8765.	1.5	70
18	Photoexcited carrier dynamics in colloidal quantum dot solar cells: insights into individual quantum dots, quantum dot solid films and devices. Chemical Society Reviews, 2020, 49, 49-84.	18.7	70

#	ARTICLE	IF	CITATIONS
19	SnSe2 quantum dot sensitized solar cells prepared employing molecular metal chalcogenide as precursors. Chemical Communications, 2012, 48, 3324.	2.2	67
20	Investigation of Interfacial Charge Transfer in Solution Processed Cs₂SnI₆ Thin Films. Journal of Physical Chemistry C, 2017, 121, 13092-13100.	1.5	66
21	Slow hot carrier cooling in cesium lead iodide perovskites. Applied Physics Letters, 2017, 111, .	1.5	56
22	Understanding charge transfer and recombination by interface engineering for improving the efficiency of PbS quantum dot solar cells. Nanoscale Horizons, 2018, 3, 417-429.	4.1	50
23	Passivation Strategy of Reducing Both Electron and Hole Trap States for Achieving High-Efficiency PbS Quantum-Dot Solar Cells with Power Conversion Efficiency over 12%. ACS Energy Letters, 2020, 5, 3224-3236.	8.8	49
24	Solvent Engineering Using a Volatile Solid for Highly Efficient and Stable Perovskite Solar Cells. Advanced Science, 2020, 7, 1903250.	5.6	47
25	Air Stable PbSe Colloidal Quantum Dot Heterojunction Solar Cells: Ligand-Dependent Exciton Dissociation, Recombination, Photovoltaic Property, and Stability. Journal of Physical Chemistry C, 2016, 120, 28509-28518.	1.5	45
26	The effect of water on colloidal quantum dot solar cells. Nature Communications, 2021, 12, 4381.	5.8	44
27	Growth of Amorphous Passivation Layer Using Phenethylammonium Iodide for Highâ€Performance Inverted Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900243.	3.1	43
28	A 2,1,3-Benzooxadiazole Moiety in a Dâ€"Aâ€"D-type Hole-Transporting Material for Boosting the Photovoltage in Perovskite Solar Cells. Journal of Physical Chemistry C, 2017, 121, 17617-17624.	1.5	40
29	Lead Selenide Colloidal Quantum Dot Solar Cells Achieving High Open-Circuit Voltage with One-Step Deposition Strategy. Journal of Physical Chemistry Letters, 2018, 9, 3598-3603.	2.1	38
30	Nearâ€Infrared Emission from Tinâ€"Lead (Snâ€"Pb) Alloyed Perovskite Quantum Dots by Sodium Doping. Angewandte Chemie - International Edition, 2020, 59, 8421-8424.	7.2	38
31	Improvement of Photovoltaic Performance of Colloidal Quantum Dot Solar Cells Using Organic Small Molecule as Hole-Selective Layer. Journal of Physical Chemistry Letters, 2017, 8, 2163-2169.	2.1	35
32	Photoexcited hot and cold electron and hole dynamics at FAPbI3 perovskite quantum dots/metal oxide heterojunctions used for stable perovskite quantum dot solar cells. Nano Energy, 2020, 67, 104267.	8.2	35
33	Ligand-dependent exciton dynamics and photovoltaic properties of PbS quantum dot heterojunction solar cells. Physical Chemistry Chemical Physics, 2017, 19, 6358-6367.	1.3	31
34	Allâ€Inorganic CsPb_{1âˆ'<i>x</i>}Ge_{<i>x</i>}I₂Br Perovskite with Enhanced Phase Stability and Photovoltaic Performance. Angewandte Chemie, 2018, 130, 12927-12931.	1.6	31
35	Temperature dependent photovoltaic performance of TiO2/PbS heterojunction quantum dot solar cells. Solar Energy, 2020, 195, 1-5.	2.9	31
36	Trioctylphosphine Oxide Acts as Alkahest for SnX₂/PbX₂: A General Synthetic Route to Perovskite ASn_{<i>x</i>}Pb_{1â€"<i>x</i>}X₃ (A = Cs, FA, MA; X =) Tj ETQq0 0 0 rg BT /Over	3.2	31

#	Article	IF	Citations
37	Charge carrier kinetics in hematite with NiFeOx coating in aqueous solutions: Dependence on bias voltage. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 353, 344-348.	2.0	30
38	Improved photocatalytic activity by utilizing the internal electric field of polar semiconductors: a case study of self-assembled NaNbO₃oriented nanostructures. RSC Advances, 2014, 4, 3165-3170.	1.7	27
39	Neutral and anionic tetrazole-based ligands in designing novel ruthenium dyes for dye-sensitized solar cells. Journal of Power Sources, 2016, 307, 416-425.	4.0	27
40	New Tin(II) Fluoride Derivative as a Precursor for Enhancing the Efficiency of Inverted Planar Tin/Lead Perovskite Solar Cells. Journal of Physical Chemistry C, 2018, 122, 27284-27291.	1.5	26
41	Recombination Suppression in PbS Quantum Dot Heterojunction Solar Cells by Energy-Level Alignment in the Quantum Dot Active Layers. ACS Applied Materials & Interfaces, 2018, 10, 26142-26152.	4.0	24
42	Matrix Manipulation of Directlyâ€Synthesized PbS Quantum Dot Inks Enabled by Coordination Engineering. Advanced Functional Materials, 2021, 31, 2104457.	7.8	24
43	Novel Y doped BiVO4 thin film electrodes for enhanced photoelectric and photocatalytic performance. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 327, 25-32.	2.0	23
44	Ultrafast selective extraction of hot holes from cesium lead iodide perovskite films. Journal of Energy Chemistry, 2018, 27, 1170-1174.	7.1	23
45	Effect of different acceptors in di-anchoring triphenylamine dyes on the performance of dye-sensitized solar cells. Dyes and Pigments, 2014, 105, 1-6.	2.0	21
46	Inverted CsPbI2Br perovskite solar cells with enhanced efficiency and stability in ambient atmosphere via formamidinium incorporation. Solar Energy Materials and Solar Cells, 2020, 218, 110741.	3.0	21
47	Interface Passivation Effects on the Photovoltaic Performance of Quantum Dot Sensitized Inverse Opal TiO2 Solar Cells. Nanomaterials, 2018, 8, 460.	1.9	20
48	Fabrication of Y_xBi_{1âˆ'x}VO₄ solid solutions for efficient C₂H₄ photodegradation. Journal of Materials Chemistry A, 2015, 3, 4163-4169.	5.2	19
49	Hole-Transport Materials Containing Triphenylamine Donors with a Spiro[fluorene-9,9â€²-xanthene] Core for Efficient and Stable Large Area Perovskite Solar Cells. Solar Rrl, 2017, 1, 1700096.	3.1	19
50	The interparticle distance limit for multiple exciton dissociation in PbS quantum dot solid films. Nanoscale Horizons, 2019, 4, 445-451.	4.1	19
51	Improving Photovoltaic Performance of ZnO Nanowires Based Colloidal Quantum Dot Solar Cells via SnO2 Passivation Strategy. Frontiers in Energy Research, 2019, 7, .	1.2	19
52	Thiocyanate-free asymmetric ruthenium(II) dye sensitizers containing azole chromophores with near-IR light-harvesting capacity. Journal of Power Sources, 2016, 331, 100-111.	4.0	16
53	Surface-Modified Graphene Oxide/Lead Sulfide Hybrid Film-Forming Ink for High-Efficiency Bulk Nano-Heterojunction Colloidal Quantum Dot Solar Cells. Nano-Micro Letters, 2020, 12, 111.	14.4	16
54	Anthradithiophene based hole-transport material for efficient and stable perovskite solar cells. Journal of Energy Chemistry, 2020, 48, 293-298.	7.1	16

#	Article	IF	Citations
55	All-inorganic cesium lead halide perovskite nanocrystals for solar-pumped laser application. Journal of Applied Physics, 2020, 127, .	1.1	15
56	Facile synthesis of â€œlucky cloverâ€•hole-transport material for efficient and stable large-area perovskite solar cells. Journal of Power Sources, 2020, 454, 227938.	4.0	11
57	Nearâ€Infrared Emission from Tinâ€"Lead (Snâ€"Pb) Alloyed Perovskite Quantum Dots by Sodium Doping. Angewandte Chemie, 2020, 132, 8499-8502.	1.6	10
58	Triphenylamine-based hole transporting materials with thiophene-derived bridges for perovskite solar cells. Synthetic Metals, 2020, 261, 116323.	2.1	10
59	In2S3 sensitized solar cells with a new passivation layer. Journal of Photochemistry and Photobiology A: Chemistry, 2014, 281, 53-58.	2.0	8
60	In-Depth Exploration of the Charge Dynamics in Surface-Passivated ZnO Nanowires. Journal of Physical Chemistry C, 2020, 124, 15812-15817.	1.5	6
61	Hole-Transport Materials Containing Triphenylamine Donors with a Spiro[fluorene-9,9â€²-xanthene] Core for Efficient and Stable Large Area Perovskite Solar Cells (Solar RRL 9â^•2017). Solar Rrl, 2017, 1, 1770134.	3.1	3
62	Passivating Quantum Dot Carrier Transport Layer with Metal Salts. ACS Applied Materials & Interfaces, 2021, 13, 28679-28688.	4.0	3
63	Influence of charge transport layer on the crystallinity and charge extraction of pure tin-based halide perovskite film. Journal of Energy Chemistry, 2022, 69, 612-615.	7.1	2
64	Solar-pumped fiber laser with all-inorganic cesium lead halide perovskite quantum dots. , 2019, , .		1
65	Surface Coatings for Improving Solar Cell Efficiencies. , 2019, , .		0