Qian Zhao

List of Publications by Year in descending order

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32 papers	2,744 citations	304368 22 h-index	433756 31 g-index
34 all docs	34 docs citations	34 times ranked	3130 citing authors

#	Article	IF	Citations
1	Colloidal Quantum Dot Solar Cells: Progressive Deposition Techniques and Future Prospects on Largeâ€Area Fabrication. Advanced Materials, 2022, 34, e2107888.	11.1	39
2	Ionic Liquids Modulating CsPbI₃ Colloidal Quantum Dots Enable Improved Mobility for High-Performance Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 4061-4070.	4.0	17
3	Reversible Degradation in Hole Transport Layerâ€Free Carbonâ€Based Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	4
4	Bioinspired, nucleobase-driven, highly resilient, and fast-responsive antifreeze ionic conductive hydrogels for durable pressure and strain sensors. Journal of Materials Chemistry A, 2021, 9, 20703-20713.	5.2	55
5	Flexible and efficient perovskite quantum dot solar cells via hybrid interfacial architecture. Nature Communications, 2021, 12, 466.	5.8	176
6	Role of Methyl Acetate in Highly Reproducible Efficient CsPbI₃ Perovskite Quantum Dot Solar Cells. Journal of Physical Chemistry C, 2021, 125, 8469-8478.	1.5	29
7	The Isostructural Substitutionâ€Induced Growth Mechanism of Rutile TiO₂ Electron Transport Layer and the Dominant Distribution for Efficient Carbonâ€Based Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100307.	3.1	3
8	Probing the Origin of the Open Circuit Voltage in Perovskite Quantum Dot Photovoltaics. ACS Nano, 2021, 15, 19334-19344.	7.3	18
9	Size-Dependent Lattice Structure and Confinement Properties in CsPbI₃ Perovskite Nanocrystals: Negative Surface Energy for Stabilization. ACS Energy Letters, 2020, 5, 238-247.	8.8	201
10	Perovskite Solar Cells: Surface Ligand Management Aided by a Secondary Amine Enables Increased Synthesis Yield of CsPbI₃ Perovskite Quantum Dots and High Photovoltaic Performance (Adv. Mater. 32/2020). Advanced Materials, 2020, 32, 2070243.	11.1	6
11	Perovskite quantum dot solar cells: Mapping interfacial energetics for improving charge separation. Nano Energy, 2020, 78, 105319.	8.2	31
12	Metal Halide Perovskites in Quantum Dot Solar Cells: Progress and Prospects. Joule, 2020, 4, 1160-1185.	11.7	211
13	Enhancing Charge Transport of 2D Perovskite Passivation Agent for Wideâ€Bandgap Perovskite Solar Cells Beyond 21%. Solar Rrl, 2020, 4, 2070065.	3.1	2
14	Enhancing Charge Transport of 2D Perovskite Passivation Agent for Wideâ€Bandgap Perovskite Solar Cells Beyond 21%. Solar Rrl, 2020, 4, 2000082.	3.1	79
15	Surface Ligand Management Aided by a Secondary Amine Enables Increased Synthesis Yield of CsPbI₃ Perovskite Quantum Dots and High Photovoltaic Performance. Advanced Materials, 2020, 32, e2000449.	11.1	137
16	Guanidiniumâ€Assisted Surface Matrix Engineering for Highly Efficient Perovskite Quantum Dot Photovoltaics. Advanced Materials, 2020, 32, e2001906.	11.1	125
17	Enhanced Open-Circuit Voltage of Wide-Bandgap Perovskite Photovoltaics by Using Alloyed (FA_{1â€“x}Cs_x)Pb(I_{1â€“x}Br_x)₃ Quantum Dots. ACS Energy Letters, 2019, 4, 1954-1960.	8.8	73
18	High efficiency perovskite quantum dot solar cells with charge separating heterostructure. Nature Communications, 2019, 10, 2842.	5.8	308

#	Article	IF	Citations
19	14.1% CsPbI₃ Perovskite Quantum Dot Solar Cells via Cesium Cation Passivation. Advanced Energy Materials, 2019, 9, 1900721.	10.2	254
20	Conductivity Tuning via Doping with Electron Donating and Withdrawing Molecules in Perovskite CsPbI₃ Nanocrystal Films. Advanced Materials, 2019, 31, e1902250.	11.1	66
21	Enhanced Charge Transport in 2D Perovskites via Fluorination of Organic Cation. Journal of the American Chemical Society, 2019, 141, 5972-5979.	6.6	274
22	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
23	Tunable white-light emission by supramolecular self-sorting in highly swollen hydrogels. Chemical Communications, 2018, 54, 200-203.	2.2	73
24	Perovskite Quantum Dots. A New Absorber for Perovskite-Perovskite Tandem Solar Cells. , 2018, , .		2
25	Perovskite Quantum Dot Photovoltaic Materials beyond the Reach of Thin Films: Full-Range Tuning of A-Site Cation Composition. ACS Nano, 2018, 12, 10327-10337.	7.3	186
26	Tunable photo-luminescence behaviors of macrocycle-containing polymer networks in the solid-state. Chemical Communications, 2018, 54, 6068-6071.	2.2	20
27	Macrocycle crosslinked mesoporous polymers for ultrafast separation of organic dyes. Chemical Communications, 2018, 54, 7362-7365.	2.2	39
28	Reversibly Tunable White-Light Emissions of Styrylpyridiniums with Cucurbiturils in Aqueous Solution. Organic Letters, 2017, 19, 6650-6653.	2.4	53
29	Controllable Photoluminescence Behaviors of Amphiphilic Porphyrin Supramolecular Assembly Mediated by Cyclodextrins. Advanced Optical Materials, 2017, 5, 1700770.	3.6	18
30	Non-precious transition metals as counter electrode of perovskite solar cells. Energy Storage Materials, 2017, 7, 40-47.	9.5	56
31	Improving the photovoltaic performance of perovskite solar cells with acetate. Scientific Reports, 2016, 6, 38670.	1.6	55
32	Construction and drug delivery of a fluorescent TPE-bridged cyclodextrin/hyaluronic acid supramolecular assembly. RSC Advances, 2016, 6, 50673-50679.	1.7	20