Jianbing Zhang

List of Publications by Year
in descending order

61 papers	3,244 citations	186265 28 h-index	149698 56 g-index
63 all docs	63 docs citations	63 times ranked	4041 citing authors

#	Article	IF	Citations
1	Singleâ€Component Whiteâ€Light Emitters with Excellent Color Rendering Indexes and High Photoluminescence Quantum Efficiencies. Advanced Optical Materials, 2022, 10, .	7.3	18
2	Efficient Enhancement of Stability and Luminescence of Three-Dimensional CsPbBr₃ Nanoparticles via Ligand-Triggered Transformation into Zero-Dimensional Cs₄PbBr₆ Nanoparticles. Journal of Physical Chemistry C, 2022, 126, 4172-4181.	3.1	4
3	Matching Charge Extraction Contact for Infrared PbS Colloidal Quantum Dot Solar Cells. Small, 2022, 18, e2105495.	10.0	20
4	Ligand-Engineered HgTe Colloidal Quantum Dot Solids for Infrared Photodetectors. Nano Letters, 2022, 22, 3465-3472.	9.1	36
5	Highly sensitive SWIR photodetector using carbon nanotube thin film transistor gated by quantum dots heterojunction. Applied Physics Letters, 2022, 120, .	3.3	3
6	Highly luminescent zero-dimensional lead-free manganese halides for Î³-ray scintillation. Nano Research, 2022, 15, 8486-8492.	10.4	18
7	Generating and Capturing Secondary Hot Carriers in Monolayer Tungsten Dichalcogenides. Journal of Physical Chemistry Letters, 2022, 13, 5703-5710.	4.6	2
8	CsPb(Br/Cl)3 Perovskite Nanocrystals with Bright Blue Emission Synergistically Modified by Calcium Halide and Ammonium Ion. Nanomaterials, 2022, 12, 2026.	4.1	5
9	Highly Luminescent Zero-Dimensional Organic Copper Halide with Low-Loss Optical Waveguides and Highly Polarized Emission. , 2022, 4, 1446-1452.		21
10	Efficient Infrared Solar Cells Employing Quantum Dot Solids with Strong Interâ€Dot Coupling and Efficient Passivation. Advanced Functional Materials, 2021, 31, 2006864.	14.9	16
11	Triplet energy migration pathways from PbS quantum dots to surface-anchored polyacenes controlled by charge transfer. Nanoscale, 2021, 13, 1303-1310.	5.6	5
12	Cu²⁺-Doped CsPbI₃ Nanocrystals with Enhanced Stability for Light-Emitting Diodes. Journal of Physical Chemistry Letters, 2021, 12, 3038-3045.	4.6	37
13	In-situ observation of trapped carriers in organic metal halide perovskite films with ultra-fast temporal and ultra-high energetic resolutions. Nature Communications, 2021, 12, 1636.	12.8	11
14	Enhanced Photoluminescence of Colloidal Leadâ€Free Double Perovskite Cs₂Ag_{1âˆ’}<i>_x</i>Na<i>_x</i>InCl₆ Nanocrystals Doped with Manganese. Advanced Optical Materials, 2021, 9, 2001866.	7.3	24
15	Efficient Dual-Band White-Light Emission with High Color Rendering from Zero-Dimensional Organic Copper Iodide. ACS Applied Materials & Interfaces, 2021, 13, 22749-22756.	8.0	57
16	Synthesis of Highly Luminescent InP/ZnS Quantum Dots with Suppressed Thermal Quenching. Coatings, 2021, 11, 581.	2.6	4
17	Highly Luminescent Zero-Dimensional Organic Copper Halides for X-ray Scintillation. Journal of Physical Chemistry Letters, 2021, 12, 6919-6926.	4.6	95
18	Efficiently Passivated PbSe Quantum Dot Solids for Infrared Photovoltaics. ACS Nano, 2021, 15, 3376-3386.	14.6	32

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19	Realizing Near-Unity Quantum Efficiency of Zero-Dimensional Antimony Halides through Metal Halide Structural Modulation. ACS Applied Materials & Interfaces, 2021, 13, 58908-58915.	8.0	36
20	Cationâ€Exchange Synthesis of Highly Monodisperse PbS Quantum Dots from ZnS Nanorods for Efficient Infrared Solar Cells. Advanced Functional Materials, 2020, 30, 1907379.	14.9	80
21	Efficient PbSe Colloidal Quantum Dot Solar Cells Using SnO₂ as a Buffer Layer. ACS Applied Materials & Interfaces, 2020, 12, 2566-2571.	8.0	21
22	Enhanced Passivation and Carrier Collection in Ink-Processed PbS Quantum Dot Solar Cells via a Supplementary Ligand Strategy. ACS Applied Materials & Interfaces, 2020, 12, 42217-42225.	8.0	27
23	Bright infra-red quantum dot light-emitting diodes through efficient suppressing of electrons. Applied Physics Letters, 2020, 116, .	3.3	11
24	Sublimation and related thermal stability of PbSe nanocrystals with effective size control evidenced by in situ transmission electron microscopy. Nano Energy, 2020, 75, 104816.	16.0	13
25	Nonvolatile Resistive Switching Memory Device Employing CdSe/CdS Core/Shell Quantum Dots as an Electrode Modification Layer. ACS Applied Electronic Materials, 2020, 2, 827-837.	4.3	15
26	Photophysics in Cs₃Cu₂X₅ (X = Cl, Br, or I): Highly Luminescent Self-Trapped Excitons from Local Structure Symmetrization. Chemistry of Materials, 2020, 32, 3462-3468.	6.7	177
27	Facet Control for Trapâ€State Suppression in Colloidal Quantum Dot Solids. Advanced Functional Materials, 2020, 30, 2000594.	14.9	60
28	Efficient and Reabsorptionâ€Free Radioluminescence in Cs₃Cu₂I₅ Nanocrystals with Selfâ€Trapped Excitons. Advanced Science, 2020, 7, 2000195.	11.2	282
29	PbSe Quantum Dots Sensitized High-Mobility Bi₂O₂Se Nanosheets for High-Performance and Broadband Photodetection Beyond 2 Î¼m. ACS Nano, 2019, 13, 9028-9037.	14.6	149
30	Lead Selenide (PbSe) Colloidal Quantum Dot Solar Cells with >10% Efficiency. Advanced Materials, 2019, 31, e1900593.	21.0	80
31	Controlled synthesis and photostability of blue emitting Cs₃Bi₂Br₉ perovskite nanocrystals by employing weak polar solvents at room temperature. Journal of Materials Chemistry C, 2019, 7, 3688-3695.	5.5	50
32	Hybrid Growth Modes of PbSe Nanocrystals with Oriented Attachment and Grain Boundary Migration. Advanced Science, 2019, 6, 1802202.	11.2	26
33	Quantum Confinement-Tunable Ultrafast Charge Transfer in a PbS Quantum Dots/WSe₂ 0Dâ€“2D Hybrid Structure: Transition from the Weak to Strong Coupling Regime. Journal of Physical Chemistry Letters, 2019, 10, 7665-7671.	4.6	25
34	Manipulating Charge Transfer from Core to Shell in CdSe/CdS/Au Heterojunction Quantum Dots. ACS Applied Materials & Interfaces, 2019, 11, 48551-48555.	8.0	7
35	Phosphine-free synthesis and shape evolution of MoSe₂ nanoflowers for electrocatalytic hydrogen evolution reactions. CrystEngComm, 2018, 20, 2491-2498.	2.6	21
36	Self-assembly and photoactivation of blue luminescent CsPbBr₃ mesocrystals synthesized at ambient temperature. Journal of Materials Chemistry C, 2018, 6, 1701-1708.	5.5	17

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37	Carrier Transport Dynamics in High Speed Black Phosphorus Photodetectors. ACS Photonics, 2018, 5, 1412-1417.	6.6	15
38	In Situ Tuning the Reactivity of Selenium Precursor To Synthesize Wide Range Size, Ultralarge-Scale, and Ultrastable PbSe Quantum Dots. Chemistry of Materials, 2018, 30, 982-989.	6.7	27
39	Controlled synthesis of brightly fluorescent CH₃NH₃PbBr₃perovskite nanocrystals employing Pb(C₁₇H₃₃COO)₂as the sole lead source. RSC Advances, 2018, 8, 1132-1139.	3.6	6
40	Phosphine-free synthesis and optical stabilities of composition-tuneable monodisperse ternary PbSe_{1âˆ’x}S_x alloyed nanocrystals <i>via</i> cation exchange. CrystEngComm, 2018, 20, 2519-2527.	2.6	3
41	Colloidal synthesis of lead-free all-inorganic cesium bismuth bromide perovskite nanoplatelets. CrystEngComm, 2018, 20, 7473-7478.	2.6	44
42	Electron Beam Induced Formation of Hollow RbBr Nanocubes. Journal of Physical Chemistry C, 2018, 122, 28347-28350.	3.1	0
43	Sub-50 picosecond to microsecond carrier transport dynamics in pentacene thin films. Applied Physics Letters, 2018, 113, 183509.	3.3	8
44	Solution-processed solar-blind deep ultraviolet photodetectors based on strongly quantum confined ZnS quantum dots. Journal of Materials Chemistry C, 2018, 6, 11266-11271.	5.5	46
45	Improving carrier extraction in a PbSe quantum dot solar cell by introducing a solution-processed antimony-doped SnO₂ buffer layer. Journal of Materials Chemistry C, 2018, 6, 9861-9866.	5.5	20
46	Surface Passivation of Bismuth-Based Perovskite Variant Quantum Dots To Achieve Efficient Blue Emission. Nano Letters, 2018, 18, 6076-6083.	9.1	157
47	Accelerated formation and improved performance of CH₃NH₃PbI₃-based perovskite solar cells via solvent coordination and anti-solvent extraction. Journal of Materials Chemistry A, 2017, 5, 4190-4198.	10.3	65
48	Low cost and large scale synthesis of PbS quantum dots with hybrid surface passivation. CrystEngComm, 2017, 19, 946-951.	2.6	24
49	Combination of Cation Exchange and Quantized Ostwald Ripening for Controlling Size Distribution of Lead Chalcogenide Quantum Dots. Chemistry of Materials, 2017, 29, 3615-3622.	6.7	44
50	A New Passivation Route Leading to Over 8% Efficient PbSe Quantumâ€Dot Solar Cells via Direct Ion Exchange with Perovskite Nanocrystals. Advanced Materials, 2017, 29, 1703214.	21.0	69
51	Controllable Synthesis of Two-Dimensional Ruddlesdenâ€“Popper-Type Perovskite Heterostructures. Journal of Physical Chemistry Letters, 2017, 8, 6211-6219.	4.6	54
52	Significant Improvement in the Performance of PbSe Quantum Dot Solar Cell by Introducing a CsPbBr₃ Perovskite Colloidal Nanocrystal Back Layer. Advanced Energy Materials, 2017, 7, 1601773.	19.5	56
53	Revisiting the Valence and Conduction Band Size Dependence of PbS Quantum Dot Thin Films. ACS Nano, 2016, 10, 3302-3311.	14.6	118
54	Preparation of Cd/Pb Chalcogenide Heterostructured Janus Particles <i>via</i> Controllable Cation Exchange. ACS Nano, 2015, 9, 7151-7163.	14.6	97

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55	Metal Halide Solid-State Surface Treatment for High Efficiency PbS and PbSe QD Solar Cells. Scientific Reports, 2015, 5, 9945.	3.3	205
56	Synthetic Conditions for High-Accuracy Size Control of PbS Quantum Dots. Journal of Physical Chemistry Letters, 2015, 6, 1830-1833.	4.6	109
57	Diffusion-Controlled Synthesis of PbS and PbSe Quantum Dots with <i>in Situ</i> Halide Passivation for Quantum Dot Solar Cells. ACS Nano, 2014, 8, 614-622.	14.6	256
58	PbSe Quantum Dot Solar Cells with More than 6% Efficiency Fabricated in Ambient Atmosphere. Nano Letters, 2014, 14, 6010-6015.	9.1	212
59	Carrier Transport in PbS and PbSe QD Films Measured by Photoluminescence Quenching. Journal of Physical Chemistry C, 2014, 118, 16228-16235.	3.1	50
60	Temporal evolutions of the photoluminescence quantum yields of colloidal InP, InAs and their core/shell nanocrystals. Journal of Materials Chemistry C, 2014, 2, 4442-4448.	5.5	8
61	One-pot synthesis of hydrophilic CuInS₂ and CuInS₂â€“ZnS colloidal quantum dots. Journal of Materials Chemistry C, 2014, 2, 4812-4817.	5.5	43