Jialong Zhao

List of Publications by Year
in descending order

102 papers	4,981 citations	94433 37 h-index	95266 68 g-index
104 all docs	104 docs citations	104 times ranked	5435 citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient CdSe/CdS Quantum Dot Light-Emitting Diodes Using a Thermally Polymerized Hole Transport Layer. Nano Letters, 2006, 6, 463-467.	9.1	502
2	Photoluminescence Temperature Dependence, Dynamics, and Quantum Efficiencies in Mn²⁺-Doped CsPbCl₃ Perovskite Nanocrystals with Varied Dopant Concentration. Chemistry of Materials, 2017, 29, 8003-8011.	6.7	274
3	Temperature-Dependent Photoluminescence of CdSe-Core CdS/CdZnS/ZnS-Multishell Quantum Dots. Journal of Physical Chemistry C, 2009, 113, 13545-13550.	3.1	218
4	Blue Quantum Dot Light-Emitting Diodes with High Electroluminescent Efficiency. ACS Applied Materials & Interfaces, 2017, 9, 38755-38760.	8.0	204
5	Towards efficient solid-state photoluminescence based on carbon-nanodots and starch composites. Nanoscale, 2014, 6, 13076-13081.	5.6	193
6	Temperature-dependent photoluminescence of inorganic perovskite nanocrystal films. RSC Advances, 2016, 6, 78311-78316.	3.6	182
7	Thermal degradation of luminescence in inorganic perovskite CsPbBr₃nanocrystals. Physical Chemistry Chemical Physics, 2017, 19, 8934-8940.	2.8	147
8	Electroluminescence from isolated CdSeâˆ•ZnS quantum dots in multilayered light-emitting diodes. Journal of Applied Physics, 2004, 96, 3206-3210.	2.5	144
9	Boosting triplet self-trapped exciton emission in Te(IV)-doped Cs2SnCl6 perovskite variants. Nano Research, 2021, 14, 1551-1558.	10.4	127
10	Efficient Energy Transfer in Te⁴⁺-Doped Cs₂ZrCl₆ Vacancy-Ordered Perovskites and Ultrahigh Moisture Stability via A-Site Rb-Alloying Strategy. Journal of Physical Chemistry Letters, 2021, 12, 1829-1837.	4.6	127
11	Toward Highly Luminescent and Stabilized Silica-Coated Perovskite Quantum Dots through Simply Mixing and Stirring under Room Temperature in Air. ACS Applied Materials & Interfaces, 2018, 10, 13053-13061.	8.0	115
12	Enhancing the Performance of Quantum Dot Light-Emitting Diodes Using Room-Temperature-Processed Ga-Doped ZnO Nanoparticles as the Electron Transport Layer. ACS Applied Materials & Interfaces, 2017, 9, 15605-15614.	8.0	113
13	Thermal stability of Mn²⁺ion luminescence in Mn-doped coreâ€“shell quantum dots. Nanoscale, 2014, 6, 300-307.	5.6	105
14	Efficient Photoluminescence of Mn²⁺ Ions in MnS/ZnS Core/Shell Quantum Dots. Journal of Physical Chemistry C, 2009, 113, 16969-16974.	3.1	103
15	High color purity ZnSe/ZnS core/shell quantum dot based blue light emitting diodes with an inverted device structure. Applied Physics Letters, 2013, 103, .	3.3	86
16	Dual Emissive Manganese and Copper Co-Doped Znâ€“Inâ€“S Quantum Dots as a Single Color-Converter for High Color Rendering White-Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2015, 7, 8659-8666.	8.0	86
17	Self-Trapped Exciton Emission in a Zero-Dimensional (TMA)₂SbCl₅Â·DMF Single Crystal and Molecular Dynamics Simulation of Structural Stability. Journal of Physical Chemistry Letters, 2021, 12, 7091-7099.	4.6	86
18	Improved Doping and Emission Efficiencies of Mn-Doped CsPbCl₃ Perovskite Nanocrystals via Nickel Chloride. Journal of Physical Chemistry Letters, 2019, 10, 4177-4184.	4.6	79

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19	Near-Unity Red Mn²⁺ Photoluminescence Quantum Yield of Doped CsPbCl₃ Nanocrystals with Cd Incorporation. Journal of Physical Chemistry Letters, 2020, 11, 2142-2149.	4.6	77
20	Highly Efficient and Low Turn-On Voltage Quantum Dot Light-Emitting Diodes by Using a Stepwise Hole-Transport Layer. ACS Applied Materials & Interfaces, 2015, 7, 15955-15960.	8.0	76
21	Highly Stable Red Quantum Dot Light-Emitting Diodes with Long <i>T</i>₉₅ Operation Lifetimes. Journal of Physical Chemistry Letters, 2020, 11, 3111-3115.	4.6	76
22	The work mechanism and sub-bandgap-voltage electroluminescence in inverted quantum dot light-emitting diodes. Scientific Reports, 2014, 4, 6974.	3.3	73
23	Phase control of hierarchically structured mesoporous anatase TiO2 microspheres covered with {001} facets. Journal of Materials Chemistry, 2012, 22, 21965.	6.7	66
24	Highly efficient green InP-based quantum dot light-emitting diodes regulated by inner alloyed shell component. Light: Science and Applications, 2022, 11, .	16.6	55
25	Advances and Challenges in Two-Dimensional Organicâ€“Inorganic Hybrid Perovskites Toward High-Performance Light-Emitting Diodes. Nano-Micro Letters, 2021, 13, 163.	27.0	54
26	Robust and Stable Ratiometric Temperature Sensor Based on Znâ€“Inâ€“S Quantum Dots with Intrinsic Dualâ€Dopant Ion Emissions. Advanced Functional Materials, 2016, 26, 7224-7233.	14.9	53
27	Enhanced luminescence and energy transfer in Mn²⁺ doped CsPbCl_{3âˆ’x}Br_x perovskite nanocrystals. Nanoscale, 2018, 10, 19435-19442.	5.6	53
28	Shell-thickness-dependent photoinduced electron transfer from CuInS2/ZnS quantum dots to TiO2 films. Applied Physics Letters, 2013, 102, .	3.3	50
29	Highly efficient and well-resolved Mn2+ ion emission in MnS/ZnS/CdS quantum dots. Journal of Materials Chemistry C, 2013, 1, 2540.	5.5	50
30	Color-tunable photoluminescence of Cu-doped Znâ€“Inâ€“Se quantum dots and their electroluminescence properties. Journal of Materials Chemistry C, 2016, 4, 581-588.	5.5	48
31	Inverted CdSe/CdS/ZnS quantum dot light emitting devices with titanium dioxide as an electron-injection contact. Nanoscale, 2013, 5, 3474.	5.6	47
32	Magnetic circular dichroism of ferromagnetic Co2+-doped ZnO. Applied Physics Letters, 2006, 89, 062510.	3.3	45
33	WO₃â€Based Electrochromic Distributed Bragg Reflector: Toward Electrically Tunable Microcavity Luminescent Device. Advanced Optical Materials, 2018, 6, 1700791.	7.3	45
34	Photoluminescence Quenching of CdSe Core/Shell Quantum Dots by Hole Transporting Materials. Journal of Physical Chemistry C, 2009, 113, 1886-1890.	3.1	43
35	Mn²⁺-doped Znâ€“Inâ€“S quantum dots with tunable bandgaps and high photoluminescence properties. Journal of Materials Chemistry C, 2015, 3, 8844-8851.	5.5	43
36	Shell-dependent electroluminescence from colloidal CdSe quantum dots in multilayer light-emitting diodes. Journal of Applied Physics, 2009, 105, .	2.5	39

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37	Efficient full-color emitting carbon-dot-based composite phosphors by chemical dispersion. Nanoscale, 2020, 12, 15823-15831.	5.6	39
38	Ultrafast carrier dynamics in CuInS2 quantum dots. Applied Physics Letters, 2014, 104, .	3.3	38
39	High-efficiency inverted quantum dot light-emitting diodes with enhanced hole injection. Nanoscale, 2017, 9, 6748-6754.	5.6	35
40	Inorganic Solid Phosphorus Precursor of Sodium Phosphaethynolate for Synthesis of Highly Luminescent InP-Based Quantum Dots. ACS Energy Letters, 2021, 6, 2697-2703.	17.4	35
41	Component Engineering to Tailor the Structure and Optical Properties of Sb-Doped Indium-Based Halides. Inorganic Chemistry, 2022, 61, 1486-1494.	4.0	35
42	Improving the efficiency and reducing efficiency roll-off in quantum dot light emitting devices by utilizing plasmonic Au nanoparticles. Journal of Materials Chemistry C, 2013, 1, 470-476.	5.5	33
43	Efficient and Stable Red Emissive Carbon Nanoparticles with a Hollow Sphere Structure for White Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2016, 8, 31863-31870.	8.0	32
44	Enhancing luminescence of intrinsic and Mn doped CsPbCl3 perovskite nanocrystals through Co2+ doping. Materials Research Bulletin, 2020, 121, 110608.	5.2	32
45	MÃ¶ssbauer study on the magnetic properties and cation distribution of CoFe2O4 nanoparticles synthesized by hydrothermal method. Journal of Materials Science, 2016, 51, 5487-5492.	3.7	31
46	Degradation of quantum dot light emitting diodes, the case under a low driving level. Journal of Materials Chemistry C, 2020, 8, 2014-2018.	5.5	31
47	Cu doping-enhanced emission efficiency of Mn2+ in cesium lead halide perovskite nanocrystals for efficient white light-emitting diodes. Journal of Luminescence, 2020, 227, 117586.	3.1	30
48	Mg-Doped ZnO Nanoparticle Films as the Interlayer between the ZnO Electron Transport Layer and InP Quantum Dot Layer for Light-Emitting Diodes. Journal of Physical Chemistry C, 2020, 124, 8758-8765.	3.1	30
49	Photoluminescence Lifetimes and Thermal Degradation of Mn²⁺-Doped CsPbCl₃ Perovskite Nanocrystals. Journal of Physical Chemistry C, 2018, 122, 23217-23223.	3.1	28
50	Ultraviolet Light-Induced Degradation of Luminescence in Mn-Doped CsPbCl₃ Nanocrystals. Journal of Physical Chemistry C, 2019, 123, 14849-14857.	3.1	28
51	Stoichiometryâ€Controlled Phase Engineering of Cesium Bismuth Halides and Reversible Structure Switch. Advanced Optical Materials, 2022, 10, .	7.3	27
52	Thermal and photo stability of all inorganic lead halide perovskite nanocrystals. Physical Chemistry Chemical Physics, 2021, 23, 17113-17128.	2.8	25
53	Improved ultraviolet radiation stability of Mn²⁺-doped CsPbCl₃ nanocrystals <i>via</i> B-site Sn doping. CrystEngComm, 2019, 21, 6238-6245.	2.6	24
54	Phase-Selective Solution Synthesis of Cd-Based Perovskite Derivatives and Their Structure/Emission Modulation. Journal of Physical Chemistry Letters, 2022, 13, 3682-3690.	4.6	23

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55	Temperature-dependent photoluminescence of Mn doped CsPbCl3 perovskite nanocrystals in mesoporous silica. Journal of Luminescence, 2018, 204, 10-15.	3.1	22
56	Pressure-Engineered Optical and Charge Transport Properties of Mn²⁺/Cu²⁺ Codoped CsPbCl₃ Perovskite Nanocrystals <i>via</i> Structural Progression. ACS Applied Materials & Interfaces, 2020, 12, 48225-48236.	8.0	22
57	Electronic and Excitonic Processes in Quantum Dot Light-Emitting Diodes. Journal of Physical Chemistry Letters, 2022, 13, 2878-2884.	4.6	21
58	Efficient Self-Trapped Exciton Emission in Ruddlesdenâ€“Popper Sb-Doped Cs₃Cd₂Cl₇ Perovskites. Journal of Physical Chemistry C, 2022, 126, 11238-11245.	3.1	21
59	Heat-up synthesis of Agâ€“Inâ€“S and Agâ€“Inâ€“S/ZnS nanocrystals: Effect of indium precursors on their optical properties. Journal of Alloys and Compounds, 2016, 665, 137-143.	5.5	20
60	Enhancing Mn Emission of CsPbCl3 Perovskite Nanocrystals via Incorporation of Rubidium Ions. Materials Research Bulletin, 2021, 133, 111080.	5.2	20
61	Efficient energy transfer from hole transporting materials to CdSe-core CdS/ZnCdS/ZnS-multishell quantum dots in type II aligned blend films. Applied Physics Letters, 2011, 99, 093106.	3.3	19
62	High performance, top-emitting, quantum dot light-emitting diodes with all solution-processed functional layers. Journal of Materials Chemistry C, 2017, 5, 9138-9145.	5.5	18
63	Mn doped AZIS/ZnS nanocrystals (NCs): Effects of Ag and Mn levels on NC optical properties. Journal of Alloys and Compounds, 2018, 765, 236-244.	5.5	18
64	Red, Green, and Blue Microcavity Quantum Dot Light-Emitting Devices with Narrow Line Widths. ACS Applied Nano Materials, 2020, 3, 5301-5310.	5.0	18
65	Surface organic ligand-passivated quantum dots: toward high-performance light-emitting diodes with long lifetimes. Journal of Materials Chemistry C, 2021, 9, 2483-2490.	5.5	18
66	Thermal stability of photoluminescence in Cu-doped Znâ€“Inâ€“S quantum dots for light-emitting diodes. Physical Chemistry Chemical Physics, 2016, 18, 10976-10982.	2.8	17
67	Near-unity blue-orange dual-emitting Mn-doped perovskite nanocrystals with metal alloying for efficient white light-emitting diodes. Journal of Colloid and Interface Science, 2021, 603, 864-873.	9.4	17
68	Mn doped AIZS/ZnS nanocrystals: Synthesis and optical properties. Journal of Alloys and Compounds, 2017, 725, 1077-1083.	5.5	16
69	2D Nitrogenâ€Containing Carbon Material C₅N as Potential Host Material for Lithium Polysulfides: A Firstâ€Principles Study. Advanced Theory and Simulations, 2019, 2, 1800165.	2.8	16
70	Enhancement of electron transfer from CdSe core/shell quantum dots to TiO2 films by thermal annealing. Journal of Luminescence, 2013, 142, 196-201.	3.1	15
71	Photoluminescence properties of transition metal-doped Znâ€“Inâ€“S/ZnS core/shell quantum dots in solid films. RSC Advances, 2016, 6, 44859-44864.	3.6	15
72	Tunable photoluminescence and an enhanced photoelectric response of Mn²⁺-doped CsPbCl₃ perovskite nanocrystals <i>via</i> pressure-induced structure evolution. Nanoscale, 2019, 11, 11660-11670.	5.6	15

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73	A bright outlook for quantum dots. Nature Photonics, 2007, 1, 683-684.	31.4	14
74	Ultrafast Carrier Dynamics and Hot Electron Extraction in Tetrapod-Shaped CdSe Nanocrystals. ACS Applied Materials & Interfaces, 2015, 7, 7938-7944.	8.0	14
75	Thermally stable luminescence of Mn2+ in Mn doped CsPbCl3 nanocrystals embedded in polydimethylsiloxane films. Journal of Luminescence, 2018, 202, 157-162.	3.1	14
76	Photoinduced Charge Separation and Recombination Processes in CdSe Quantum Dot and Graphene Oxide Composites with Methylene Blue as Linker. Journal of Physical Chemistry Letters, 2013, 4, 2919-2925.	4.6	13
77	Tunable Green Light-Emitting CsPbBr₃ Based Perovskite-Nanocrystals-in-Glass Flexible Film Enables Production of Stable Backlight Display. Journal of Physical Chemistry Letters, 2022, 13, 4701-4709.	4.6	13
78	Mg²⁺-Assisted Passivation of Defects in CsPbI₃ Perovskite Nanocrystals for High-Efficiency Photoluminescence. Journal of Physical Chemistry Letters, 2021, 12, 11090-11097.	4.6	12
79	Studies on 0.96 and 0.84 eV photoluminescence emissions in GaAs epilayers grown on Si. Journal of Applied Physics, 1996, 79, 7173-7176.	2.5	9
80	Exciton-phonon coupled states in CuCl quantum cubes. Physical Review B, 2000, 63, .	3.2	9
81	Photoluminescence quenching and electron transfer in CuInS₂/ZnS core/shell quantum dot and FePt nanoparticle blend films. RSC Advances, 2015, 5, 30981-30988.	3.6	9
82	Large-Area Tunable Red/Green/Blue Tri-Stacked Quantum Dot Light-Emitting Diode Using Sandwich-Structured Transparent Silver Nanowires Electrodes. ACS Applied Materials & Interfaces, 2020, 12, 48820-48827.	8.0	9
83	Efficient, air-stable quantum dots light-emitting devices with MoO3 modifying the anode. Journal of Luminescence, 2013, 143, 442-446.	3.1	8
84	Room temperature synthesis of Mn-doped Cs₃Pb_{6.48}Cl₁₆ perovskite nanocrystals with pure dopant emission and temperature-dependent photoluminescence. CrystEngComm, 2019, 21, 3568-3575.	2.6	8
85	Cu substitution boosts self-trapped exciton emission in zinc-based metal halides for sky-blue light-emitting diodes. Journal of Materials Chemistry C, 2022, 10, 9530-9537.	5.5	8
86	On the accurate characterization of quantum-dot light-emitting diodes for display applications. Npj Flexible Electronics, 2022, 6, .	10.7	8
87	Synthesis and optical properties of Mn2+-doped Cdâ€“Inâ€“S colloidal nanocrystals. Journal of Materials Science, 2020, 55, 12801-12810.	3.7	7
88	Enhanced photoluminescence efficiencies of CsPbCl3-xBrx nanocrystals by incorporating neodymium ions. Journal of Luminescence, 2022, 243, 118658.	3.1	7
89	Aluminum chloride assisted synthesis of near-unity emitting Mn²⁺-doped CsPbCl₃ perovskite nanocrystals for bright white light-emitting diodes. Journal of Materials Chemistry C, 2022, 10, 9849-9857.	5.5	7
90	Câ€“O bond activation and splitting behaviours of CO₂ on a 4H-SiC surface: a DFT study. Physical Chemistry Chemical Physics, 2018, 20, 26846-26852.	2.8	6

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91	Near-unity photoluminescence quantum yield Mn-doped two-dimensional halide perovskite platelets via hydrobromic acid-assisted synthesis. Journal of Luminescence, 2022, 245, 118790.	3.1	6
92	A-Site FA⁺ Doping-Enhanced Photoluminescence Efficiency and Photostability of Mn-Doped Perovskite Nanocrystals. Journal of Physical Chemistry C, 2022, 126, 3582-3590.	3.1	6
93	Mn-doped Cu-Zn-In-S/ZnS nanocrystals: optical properties and their use as time-gated fluorescence probes. Journal of Nanoparticle Research, 2019, 21, 1.	1.9	5
94	Photoluminescence of CdS semiconductor nanocrystals in sodium borosilicate glasses. Journal of Materials Science Letters, 1996, 15, 702-705.	0.5	4
95	Universal Dephasing Mechanism in Semiconductor Quantum Dots Embedded in a Matrix. Journal of the Physical Society of Japan, 2003, 72, 249-252.	1.6	4
96	Boosted luminescence efficiency and stability of Mn-doped perovskite nanoplatelets via incorporating Cd2+ ions. Materials Research Bulletin, 2022, 151, 111825.	5.2	4
97	Confined Acoustic Vibration Modes in CuBr Quantum Dots. Journal of the Physical Society of Japan, 2005, 74, 3082-3087.	1.6	2
98	Effects of Magnetic Annealing on Structure and Magnetic Properties of L10-FePt/Ag Films. Journal of Superconductivity and Novel Magnetism, 2015, 28, 2491-2494.	1.8	1
99	Correction to â€œMg Doped-ZnO Nanoparticle Film as the Interlayer between ZnO Electron Transport Layer and InP Quantum-Dot Layer for Light-Emitting Diodesâ€ Journal of Physical Chemistry C, 2020, 124, 11274-11274.	3.1	1
100	Temperature dependence of deep-level photoluminescence in Ga0.5In0.5P epilayers grown by metal-organic chemical vapour deposition. Journal of Materials Science Letters, 1993, 12, 53-55.	0.5	1
101	Optical Nonlinearities Of The Metal-oxide Semiconductor Particles. , 1990, , .		0
102	Studies on deep levels in GaAs epilayers grown on Si by metal-organic chemical vapour deposition. Journal of Materials Science Letters, 1996, 15, 189-191.	0.5	0