

Zhiqin Liang

List of Publications by Year in descending order

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113
papers

2,785
citations

218677

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206112

48
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113
all docs

113
docs citations

113
times ranked

4478
citing authors

#	ARTICLE	IF	CITATIONS
1	Feasibility of Emission-Enhanced CsPbCl ₃ Quantum Dots Co-Doped with Mn ²⁺ and Er ³⁺ as Luminescent Downshifting Layers in Crystalline Silicon Solar Modules. ACS Applied Nano Materials, 2022, 5, 2522-2531.	5.0	13
2	Improved phase purity and film quality in quasi-2D perovskite light-emitting diodes by an additive with the trimethacrylate group. RSC Advances, 2022, 12, 3081-3089.	3.6	7
3	Suppressed Halide Segregation and Defects in Wide Bandgap Perovskite Solar Cells Enabled by Doping Organic Bromide Salt with Moderate Chain Length. Journal of Physical Chemistry C, 2022, 126, 1711-1720.	3.1	8
4	Predicting the photon energy of quasi-2D lead halide perovskites from the precursor composition through machine learning. Nanoscale Advances, 2022, 4, 1632-1638.	4.6	6
5	The Improvement of the Performance of Sky-Blue OLEDs by Decreasing Interface Traps and Balancing Carriers with PSVA Treatment. Polymers, 2022, 14, 622.	4.5	3
6	Device performance improvements in all-inorganic perovskite light-emitting diodes: the role of binary ammonium cation terminals. Physical Chemistry Chemical Physics, 2022, 24, 6208-6214.	2.8	2
7	Key Factors Governing the External Quantum Efficiency of Thermally Activated Delayed Fluorescence Organic Light-Emitting Devices: Evidence from Machine Learning. ACS Omega, 2022, 7, 7893-7900.	3.5	11
8	Small dose of phosphorescent dopant enabling high efficiency and bright solution-processed sky-blue organic light-emitting diodes. Optical Materials, 2022, 128, 112278.	3.6	1
9	High-Performance MAPbI ₃ /PM6:Y6 Perovskite/Organic Hybrid Photodetectors with a Broadband Response. Advanced Optical Materials, 2022, 10, .	7.3	9
10	Interfacial Exciplex Host to Release Interfacial Accumulated Charges for Highly Efficient and Bright Solution-Processed White Organic Light-Emitting Diodes. Advanced Materials Interfaces, 2022, 9, .	3.7	2
11	A New Benchmark of Charges Storage in Single-Layer Organic Light-Emitting Diodes Based on Electrical and Optical Characteristics. Molecules, 2021, 26, 741.	3.8	4
12	Radiation hardness and abnormal photoresponse dynamics of the CH ₃ NH ₃ PbI ₃ perovskite photodetector. Journal of Materials Chemistry C, 2021, 9, 2095-2105.	5.5	11
13	The recombination zone adjusted by the gradient doping of TPA-DCPP for efficient and stable deep red organic light emitting diodes. RSC Advances, 2021, 11, 24436-24442.	3.6	3
14	Synergistic function of doping and ligand engineering to enhance the photostability and electroluminescence performance of CsPbBr ₃ quantum dots. Nanotechnology, 2021, 32, 325202.	2.6	7
15	Performance improvements in all-solution processed inverted QLEDs realized by inserting an electron blocking layer. Nanotechnology, 2021, 32, 335204.	2.6	4
16	Multicolor Coding Up-Conversion Nanoplatfrom for Rapid Screening of Multiple Foodborne Pathogens. ACS Applied Materials & Interfaces, 2021, 13, 26782-26789.	8.0	18
17	Synergetic Effect of Different Carrier Dynamics in Pm6:Y6:ITIC-M Ternary Cascade Energy Level System. Polymers, 2021, 13, 2398.	4.5	9
18	Highly efficient all-solution processed blue quantum dot light-emitting diodes based on balanced charge injection achieved by double hole transport layers. Organic Electronics, 2021, 94, 106169.	2.6	12

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19	Bandgap tuning strategy by cations and halide ions of lead halide perovskites learned from machine learning. <i>RSC Advances</i> , 2021, 11, 15688-15694.	3.6	36
20	Organic Halide PEACl for Surface Passivation and Defects Suppression in Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 12411-12420.	5.1	9
21	High-Performance Near-Infrared Photodetectors Based on the Synergy Effect of Short Wavelength Light Filter and Long Wavelength Response of a Perovskite/Polymer Hybrid Structure. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 61818-61826.	8.0	7
22	Investigation on light-induced storage of charges with capacitance/conductance-voltage and its frequency characteristics. <i>Organic Electronics</i> , 2020, 76, 105425.	2.6	6
23	Filterless narrowband photodetectors employing perovskite/polymer synergetic layers with tunable spectral response. <i>Organic Electronics</i> , 2020, 76, 105417.	2.6	29
24	All-solution processed inverted QLEDs with double hole transport layers and thermal activated delay fluorescent dopant as energy transfer medium. <i>Organic Electronics</i> , 2020, 77, 105544.	2.6	11
25	Solvent modification to suppress halide segregation in mixed halide perovskite solar cells. <i>Journal of Materials Science</i> , 2020, 55, 9787-9794.	3.7	7
26	Improving the Quality and Luminescence Performance of All-Inorganic Perovskite Nanomaterials for Light-Emitting Devices by Surface Engineering. <i>Small</i> , 2020, 16, e1907089.	10.0	54
27	CsPbBr ₃ @CsPbBr ₃ Core-Shell Perovskite Core-Shell Heterojunction Nanowires via a Postsynthetic Method with HCl Gas. <i>ACS Omega</i> , 2020, 5, 11578-11584.	3.5	12
28	Modifying the Crystal Field of CsPbCl ₃ :Mn ²⁺ Nanocrystals by Co-doping to Enhance Its Red Emission by a Hundredfold. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 30711-30719.	8.0	41
29	With PBDB-T as the Donor, the PCE of Non-Fullerene Organic Solar Cells Based on Small Molecule INTIC Increased by 52.4%. <i>Materials</i> , 2020, 13, 1324.	2.9	6
30	Managed carrier density and distribution in solution-processed emission layer to achieve highly efficient and bright blue organic light-emitting devices. <i>Organic Electronics</i> , 2020, 82, 105703.	2.6	5
31	Enhancing the stability and water resistance of CsPbBr ₃ perovskite nanocrystals by using tetrafluoride and zinc oxide as protective capsules. <i>Journal of Materials Science</i> , 2020, 55, 9739-9747.	3.7	14
32	Optical Capacitance/Conductance-Voltage Characteristics of Stored Charges in Organic Light-Emitting Diodes. <i>Molecules</i> , 2020, 25, 2818.	3.8	2
33	Color-Tunable Organic Light Emitting Diodes for Deep Blue Emission by Regulating the Optical Micro-Cavity. <i>Molecules</i> , 2020, 25, 2867.	3.8	8
34	Improved film morphology and reduced defects in solution-processed red phosphorescent emission layer of the organic light-emitting diodes. <i>Synthetic Metals</i> , 2020, 261, 116322.	3.9	2
35	Synergetic interface and morphology modification to achieve highly efficient solution-processed sky-blue organic light-emitting diodes. <i>Organic Electronics</i> , 2020, 83, 105721.	2.6	5
36	Interface energy level alignment and improved film quality with a hydrophilic polymer interlayer to improve the device efficiency and stability of all-inorganic halide perovskite light-emitting diodes. <i>Journal of Materials Chemistry C</i> , 2020, 8, 6743-6748.	5.5	12

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37	The improved performance and mechanism of solution-processed blue PhOLEDs based on double electron transport layers. RSC Advances, 2020, 10, 13215-13222.	3.6	19
38	Investigation on OLEDs efficiency roll-off with interfacial charge storage and their time-resolved emission spectra. Organic Electronics, 2020, 83, 105756.	2.6	10
39	Perovskite Solar Cells Based on Compact, Smooth FA _{0.1} MA _{0.9} PbI ₃ Film with Efficiency Exceeding 22%. Nanoscale Research Letters, 2020, 15, 89.	5.7	21
40	Solvent treatment induced interface dipole and defect passivation for efficient and bright red quantum dot light-emitting diodes. Organic Electronics, 2019, 75, 105412.	2.6	8
41	Near-infrared light-driven photocatalytic NaYF ₄ :Yb,Tm@ZnO core/shell nanomaterials and their performance. RSC Advances, 2019, 9, 3688-3692.	3.6	30
42	The luminescence properties of CsPb _x M _{1-x} Br ₃ perovskite nanocrystals transformed from Cs ₄ PbBr ₆ mediated by various divalent bromide MBr ₂ salts. Nanoscale, 2019, 11, 4008-4014.	5.6	14
43	Investigating the evolution of excitons in polymer light-emitting diodes by transient measurement. Organic Electronics, 2019, 68, 45-49.	2.6	8
44	Benefits of the Hydrophobic Surface for CH ₃ NH ₃ PbI ₃ Crystalline Growth towards Highly Efficient Inverted Perovskite Solar Cells. Molecules, 2019, 24, 2027.	3.8	16
45	Highly efficient and bright blue organic light-emitting devices based on solvent engineered, solution-processed thermally activated delayed fluorescent emission layer. Organic Electronics, 2019, 71, 1-6.	2.6	14
46	Partial cation substitution of tunable blue-cyan emitting Ba ₂ B ₂ O ₅ :Ce ³⁺ for near-UV white LEDs. Journal of the American Ceramic Society, 2019, 102, 6213-6226.	3.8	5
47	Highly bright perovskite light-emitting diodes based on quasi-2D perovskite film through synergetic solvent engineering. RSC Advances, 2019, 9, 8373-8378.	3.6	15
48	Improved carrier injection and balance in solution-processed blue phosphorescent organic light emitting diodes based on mixed host system and their transient electroluminescence. Synthetic Metals, 2019, 252, 15-20.	3.9	13
49	A novel alcohol-soluble squaraine dye as an interfacial layer for efficient polymer solar cells. Organic Electronics, 2019, 69, 241-247.	2.6	7
50	Rational Strategy to Stabilize an Unstable High-Efficiency Binary Nonfullerene Organic Solar Cells with a Third Component. Advanced Energy Materials, 2019, 9, 1900376.	19.5	132
51	Enhancing the efficiency and the luminance of quantum dot light-emitting diodes by inserting a leaked electron harvesting layer with thermal-activated delayed fluorescence material. Organic Electronics, 2019, 65, 357-362.	2.6	16
52	Mechanism of transient inverse pulse current in hybrid perovskite photodetector induced by proton beam irradiation. , 2019, , .		0
53	Design and Control of the Luminescence of Cr ³⁺ -Doped Phosphors in the Near-Infrared I Region by Fitting the Crystal Field. Crystal Growth and Design, 2018, 18, 3178-3186.	3.0	69
54	Regulating the polymer crystallize behavior via the synergistic additives towards high-performance bulk heterojunction solar cells. Organic Electronics, 2018, 58, 178-184.	2.6	1

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55	An additive dripping technique using diphenyl ether for tuning perovskite crystallization for high-efficiency solar cells. <i>Nano Research</i> , 2018, 11, 2648-2657.	10.4	11
56	High-performance red electrophosphorescent devices based on all-solution-processed hydrogen-bonded supramolecular material. <i>Journal of Materials Chemistry C</i> , 2018, 6, 4095-4105.	5.5	6
57	Improving the photovoltaic performance of planar heterojunction perovskite solar cells by mixed solvent vapor treatment. <i>RSC Advances</i> , 2018, 8, 11574-11579.	3.6	8
58	Highly bright and stable all-inorganic perovskite light-emitting diodes with methoxypolyethylene glycols modified CsPbBr ₃ emission layer. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	26
59	3.5: Investigation of excited-state dynamics upon both photo- and electro-excitation of thermally activated delayed fluorescent molecules. <i>Digest of Technical Papers SID International Symposium</i> , 2018, 49, 29-34.	0.3	0
60	Enhancement of Upconversion Emissions of NaYF ₄ :Yb ³⁺ , Tm ³⁺ Nanoparticles by Ba ²⁺ Co-Doping. <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 7584-7589.	0.9	12
61	Investigation of excited-state dynamics upon both photo-excitation and electro-excitation of thermally activated delayed fluorescent molecules. <i>Journal of the Society for Information Display</i> , 2018, 26, 694-699.	2.1	2
62	Copper-on-nitride enhances the stable electrosynthesis of multi-carbon products from CO ₂ . <i>Nature Communications</i> , 2018, 9, 3828.	12.8	279
63	Improving charge transport by the ultrathin QDs interlayer in polymer solar cells. <i>RSC Advances</i> , 2018, 8, 17914-17920.	3.6	5
64	PEOz-PEDOT:PSS Composite Layer: A Route to Suppressed Hysteresis and Enhanced Open-Circuit Voltage in a Planar Perovskite Solar Cell. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 25329-25336.	8.0	19
65	Highly Efficient and Operational Stability Polymer Solar Cells Employing Nonhalogenated Solvents and Additives. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 24075-24081.	8.0	12
66	Colour- and structure-stable CsPbBr ₃ -CsPb ₂ Br ₅ compounded quantum dots with tuneable blue and green light emission. <i>Journal of Alloys and Compounds</i> , 2018, 767, 98-105.	5.5	36
67	Improving the Charge Carrier Transport and Suppressing Recombination of Soluble Squaraine-Based Solar Cells via Parallel-Like Structure. <i>Materials</i> , 2018, 11, 759.	2.9	9
68	Biphenyl Triarylamine Hole Transport Material for Highly Efficient and Low-Temperature Solution-Processed Perovskite Solar Cells. <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 7374-7379.	0.9	2
69	Upconversion Nanocrystals Mediated Lateral-Flow Nanoplatform for <i>In Vitro</i> Detection. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 3497-3504.	8.0	79
70	Perovskite solar cells with a DMSO-treated PEDOT:PSS hole transport layer exhibit higher photovoltaic performance and enhanced durability. <i>Nanoscale</i> , 2017, 9, 4236-4243.	5.6	135
71	Effect of the charge balance on high-efficiency inverted polymer light-emitting diodes. <i>Organic Electronics</i> , 2017, 49, 123-128.	2.6	11
72	Improving charge transport and suppressing charge recombination in small molecule ternary solar cells via incorporating Bis-PC 71 BM as a cascade material. <i>Organic Electronics</i> , 2017, 46, 126-132.	2.6	5

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73	The colour tuning of upconversion emission from green to red in NaScF ₄ :Yb ³⁺ /Er ³⁺ nanocrystals by adjusting the reaction time. <i>Journal of Alloys and Compounds</i> , 2017, 699, 1-6.	5.5	15
74	Water-resistant, monodispersed and stably luminescent CsPbBr ₃ /CsPb ₂ Br ₅ core-shell-like structure lead halide perovskite nanocrystals. <i>Nanotechnology</i> , 2017, 28, 445602.	2.6	101
75	Integrated Effects of Two Additives on the Enhanced Performance of PTB7:PC71BM Polymer Solar Cells. <i>Materials</i> , 2016, 9, 171.	2.9	16
76	The Electroluminescence Mechanism of Solution-Processed TADF Emitter 4CzIPN Doped OLEDs Investigated by Transient Measurements. <i>Molecules</i> , 2016, 21, 1365.	3.8	18
77	A Red-Emissive Sextuple Hydrogen-Bonding Self-Assembly Molecular Duplex Bearing Perylene Diimide Fluorophores for Warm-White Organic Light-Emitting Diode Application. <i>Chinese Journal of Chemistry</i> , 2016, 34, 387-396.	4.9	14
78	Two effects of 1,8-diiodooctane on PTB7-Th:PC71BM polymer solar cells. <i>Organic Electronics</i> , 2016, 34, 188-192.	2.6	36
79	Shape-Controlled Synthesis of All-Inorganic CsPbBr ₃ Perovskite Nanocrystals with Bright Blue Emission. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 28824-28830.	8.0	271
80	An Azulene-Containing Low Bandgap Small Molecule for Organic Photovoltaics with High Open-Circuit Voltage. <i>Chemistry - A European Journal</i> , 2016, 22, 14527-14530.	3.3	32
81	Highly Efficient p-i-n Perovskite Solar Cells Utilizing Novel Low-Temperature Solution-Processed Hole Transport Materials with Linear π -Conjugated Structure. <i>Small</i> , 2016, 12, 4902-4908.	10.0	53
82	Transient analysis on stored charges in organic light-emitting diodes and their application in alternating current driven electroluminescence. <i>Organic Electronics</i> , 2016, 39, 348-353.	2.6	21
83	Revealing the Effect of Additives with Different Solubility on the Morphology and the Donor Crystalline Structures of Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 18231-18237.	8.0	44
84	The Effects of Improved Photoelectric Properties of PEDOT:PSS by Two-Step Treatments on the Performance of Polymer Solar Cells Based on PTB7-Th:PC ₇₁ BM. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 547-552.	8.0	19
85	The electroluminescence mechanism of non-doping PhOLEDs based on CBP/Ir(ppy) ₃ investigated by delayed EL measurements. <i>Organic Electronics</i> , 2016, 28, 225-228.	2.6	8
86	The color tuning and mechanism of upconversion emission from green to red in NaLuF ₄ :Yb ³⁺ /Ho ³⁺ nanocrystals by codoping with Ce ³⁺ . <i>Journal of Alloys and Compounds</i> , 2016, 659, 146-151.	5.5	31
87	N,N-Diarylamino end-capping as a new strategy for simultaneously enhancing open-circuit voltage, short-circuit current density and fill factor in small molecule organic solar cells. <i>RSC Advances</i> , 2015, 5, 20724-20733.	3.6	17
88	Enhanced performance and morphological evolution of PTB7:PC ₇₁ BM polymer solar cells by using solvent mixtures with different additives. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 8053-8060.	2.8	55
89	Solvent-treated PEDOT:PSS on the improvement PTB7 based on polymer solar cells performance. <i>Applied Surface Science</i> , 2015, 353, 1253-1259.	6.1	13
90	Aluminium nanoparticles synthesized by a novel wet chemical method and used to enhance the performance of polymer solar cells by the plasmonic effect. <i>Journal of Materials Chemistry C</i> , 2015, 3, 4099-4103.	5.5	20

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91	The storage of charges and its optical application in organic light-emitting diodes measured by a transient electroluminescence method. <i>Organic Electronics</i> , 2015, 27, 114-118.	2.6	17
92	Improved performances of PCDTBT:PC ₇₁ BM BHJ solar cells through incorporating small molecule donor. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 26777-26782.	2.8	20
93	Low-voltage, high transmittance fringe-field switching mode liquid crystal for monitor display. <i>Liquid Crystals</i> , 2014, 41, 755-760.	2.2	6
94	The Upconversion Luminescence of Er ³⁺ /Yb ³⁺ /Nd ³⁺ Triply-Doped NaYF_4 Nanocrystals under 808-nm Excitation. <i>Materials</i> , 2014, 7, 7289-7303.	2.9	67
95	Synthesis of Water Dispersible Hexagonal-Phase NaYF_4 :Yb, Er Nanoparticles with High Efficient Upconversion Fluorescence. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 3597-3601.	0.9	7
96	Exciplex emission and decay of co-deposited 4,4'-bis[3-methylphenyl(phenyl)amino]triphenylamine:tris-[3-(3-pyridyl)mesityl]borane organic light-emitting devices with different electron transporting layer thicknesses. <i>Applied Physics Letters</i> , 2014, 104, 161112.	3.3	26
97	Influence of morphology of PCDTBT:PC71BM on the performance of solar cells. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 114, 1361-1368.	2.3	13
98	Investigation of the effects of MoO ₃ buffer layer on charge carrier injection and extraction by capacitance-voltage measurement. <i>Science Bulletin</i> , 2014, 59, 747-753.	1.7	1
99	Marked effects of indolyl vs. indolynyl substituent on solid-state structure, carrier mobility and photovoltaic efficiency of asymmetrical squaraine dyes. <i>Journal of Materials Chemistry A</i> , 2014, 2, 18313-18321.	10.3	28
100	A low bandgap asymmetrical squaraine for high-performance solution-processed small molecule organic solar cells. <i>Chemical Communications</i> , 2014, 50, 9346-9348.	4.1	36
101	Optimized upconversion emission of NaLuF ₄ :Er,Yb nanocrystals codoped with Gd ³⁺ ions and its mechanism. <i>Journal of Alloys and Compounds</i> , 2014, 593, 30-33.	5.5	22
102	The enhanced upconversion fluorescence and almost unchanged particle size of NaYF_4 :Yb ³⁺ , Er ³⁺ nanoparticles by codoping with K ⁺ ions. <i>Journal of Alloys and Compounds</i> , 2014, 610, 432-437.	5.5	32
103	Novel porphyrin-phthalocyanine heterodimers and heteropentamers: synthesis, characterization and application in organic solar cells. <i>RSC Advances</i> , 2013, 3, 13259.	3.6	5
104	Study on the influences of quantum well structure on the performance of organic light emitting devices. <i>Displays</i> , 2011, 32, 102-105.	3.7	5
105	The effect of PCBM doping on the electroluminescent performance of organic light-emitting diodes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011, 208, 2317-2320.	1.8	2
106	Modification of Exciton Lifetime by the Metal Cathode in Phosphorescent OLEDs, and Implications on Device Efficiency and Efficiency Roll-off Behavior. <i>Advanced Functional Materials</i> , 2011, 21, 2311-2317.	14.9	42
107	Dependence of carrier recombination mechanism on the thickness of the emission layer in green phosphorescent organic light emitting devices. <i>Organic Electronics</i> , 2011, 12, 582-588.	2.6	25
108	Influence of Yb ³⁺ concentration on the upconversion luminescence of oxyfluoride material doped with Er ³⁺ . <i>Science China: Physics, Mechanics and Astronomy</i> , 2010, 53, 310-314.	5.1	4

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109	An optical and structural investigation into CdTe nanocrystals embedded into the tellurium lithium borophosphate glass matrix. Science China: Physics, Mechanics and Astronomy, 2010, 53, 818-822.	5.1	6
110	Causes of efficiency roll-off in phosphorescent organic light emitting devices: Triplet-triplet annihilation versus triplet-polaron quenching. Applied Physics Letters, 2010, 97, .	3.3	177
111	The effect of annealing treatment on the performance of bulk heterojunction solar cells with donor and acceptor different weight ratios. Science in China Series G: Physics, Mechanics and Astronomy, 2009, 52, 1606-1610.	0.2	5
112	Deficiencies of the kinetics order method for the study of thermoluminescence. Journal of Applied Physics, 2007, 101, 033518.	2.5	1
113	Improved UV sensitivity and charge transport in PTB7-Th:PC ₇₁ BM solar cells doped with cadmium selenide quantum dots. Sustainable Energy and Fuels, 0, , .	4.9	3