Zhiqin Liang

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4259461/publications.pdf

Version: 2024-02-01

113 papers	2,785 citations	218677 26 h-index	206112 48 g-index
113 all docs	113 docs citations	113 times ranked	4478 citing authors

#	Article	IF	Citations
1	Copper-on-nitride enhances the stable electrosynthesis of multi-carbon products from CO2. Nature Communications, 2018, 9, 3828.	12.8	279
2	Shape-Controlled Synthesis of All-Inorganic CsPbBr₃ Perovskite Nanocrystals with Bright Blue Emission. ACS Applied Materials & Interfaces, 2016, 8, 28824-28830.	8.0	271
3	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
4	Perovskite solar cells with a DMSO-treated PEDOT:PSS hole transport layer exhibit higher photovoltaic performance and enhanced durability. Nanoscale, 2017, 9, 4236-4243.	5.6	135
5	Rational Strategy to Stabilize an Unstable Highâ€Efficiency Binary Nonfullerene Organic Solar Cells with a Third Component. Advanced Energy Materials, 2019, 9, 1900376.	19.5	132
6	Water-resistant, monodispersed and stably luminescent CsPbBr₃/CsPb₂Br₅ coreâ€“shell-like structure lead halide perovskite nanocrystals. Nanotechnology, 2017, 28, 445602.	2.6	101
7	Upconversion Nanocrystals Mediated Lateral-Flow Nanoplatform for in Vitro Detection. ACS Applied Materials & Interfaces, 2017, 9, 3497-3504.	8.0	79
8	Design and Control of the Luminescence of Cr³⁺-Doped Phosphors in the Near-Infrared I Region by Fitting the Crystal Field. Crystal Growth and Design, 2018, 18, 3178-3186.	3.0	69
9	The Upconversion Luminescence of Er3+/Yb3+/Nd3+ Triply-Doped Î²-NaYF4 Nanocrystals under 808-nm Excitation. Materials, 2014, 7, 7289-7303.	2.9	67
10	Enhanced performance and morphological evolution of PTB7:PC₇₁BM polymer solar cells by using solvent mixtures with different additives. Physical Chemistry Chemical Physics, 2015, 17, 8053-8060.	2.8	55
11	Improving the Quality and Luminescence Performance of Allâ€Inorganic Perovskite Nanomaterials for Lightâ€Emitting Devices by Surface Engineering. Small, 2020, 16, e1907089.	10.0	54
12	Highly Efficient pâ€iâ€n Perovskite Solar Cells Utilizing Novel Lowâ€Temperature Solutionâ€Processed Hole Transport Materials with Linear Ïâ€Conjugated Structure. Small, 2016, 12, 4902-4908.	10.0	53
13	Revealing the Effect of Additives with Different Solubility on the Morphology and the Donor Crystalline Structures of Organic Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 18231-18237.	8.0	44
14	Modification of Exciton Lifetime by the Metal Cathode in Phosphorescent OLEDs, and Implications on Device Efficiency and Efficiency Rollâ€off Behavior. Advanced Functional Materials, 2011, 21, 2311-2317.	14.9	42
15	Modifying the Crystal Field of CsPbCl₃:Mn²⁺ Nanocrystals by Co-doping to Enhance Its Red Emission by a Hundredfold. ACS Applied Materials & Interfaces, 2020, 12, 30711-30719.	8.0	41
16	A low bandgap asymmetrical squaraine for high-performance solution-processed small molecule organic solar cells. Chemical Communications, 2014, 50, 9346-9348.	4.1	36
17	Two effects of 1,8-diiodooctane on PTB7-Th:PC71BM polymer solar cells. Organic Electronics, 2016, 34, 188-192.	2.6	36
18	Colour- and structure-stable CsPbBr3-CsPb2Br5 compounded quantum dots with tuneable blue and green light emission. Journal of Alloys and Compounds, 2018, 767, 98-105.	5.5	36

#	Article	IF	Citations
19	Bandgap tuning strategy by cations and halide ions of lead halide perovskites learned from machine learning. RSC Advances, 2021, 11, 15688-15694.	3.6	36
20	The enhanced upconversion fluorescence and almost unchanged particle size of Î²-NaYF4:Yb3+, Er3+ nanoparticles by codoping with K+ ions. Journal of Alloys and Compounds, 2014, 610, 432-437.	5.5	32
21	An Azuleneâ€Containing Low Bandgap Small Molecule for Organic Photovoltaics with High Openâ€Circuit Voltage. Chemistry - A European Journal, 2016, 22, 14527-14530.	3.3	32
22	The color tuning and mechanism of upconversion emission from green to red in NaLuF4:Yb3+/Ho3+ nanocrystals by codoping with Ce3+. Journal of Alloys and Compounds, 2016, 659, 146-151.	5.5	31
23	Near-infrared light-driven photocatalytic NaYF₄:Yb,Tm@ZnO core/shell nanomaterials and their performance. RSC Advances, 2019, 9, 3688-3692.	3.6	30
24	Filterless narrowband photodetectors employing perovskite/polymer synergetic layers with tunable spectral response. Organic Electronics, 2020, 76, 105417.	2.6	29
25	Marked effects of indolyl vs. indolinyl substituent on solid-state structure, carrier mobility and photovoltaic efficiency of asymmetrical squaraine dyes. Journal of Materials Chemistry A, 2014, 2, 18313-18321.	10.3	28
26	Exciplex emission and decay of co-deposited 4,4â€²,4â€³-tris[3-methylphenyl(phenyl)amino]triphenylamine:tris-[3-(3-pyridyl)mesityl]borane organic light-emitting devices with different electron transporting layer thicknesses. Applied Physics Letters, 2014, 104, 161112.	3.3	26
27	Highly bright and stable all-inorganic perovskite light-emitting diodes with methoxypolyethylene glycols modified CsPbBr3 emission layer. Applied Physics Letters, 2018, 113, .	3.3	26
28	Dependence of carrier recombination mechanism on the thickness of the emission layer in green phosphorescent organic light emitting devices. Organic Electronics, 2011, 12, 582-588.	2.6	25
29	Optimized upconversion emission of NaLuF4:Er,Yb nanocrystals codoped with Gd3+ ions and its mechanism. Journal of Alloys and Compounds, 2014, 593, 30-33.	5.5	22
30	Transient analysis on stored charges in organic light-emitting diodes and their application in alternating current driven electroluminescence. Organic Electronics, 2016, 39, 348-353.	2.6	21
31	Perovskite Solar Cells Based on Compact, Smooth FA0.1MA0.9PbI3 Film with Efficiency Exceeding 22%. Nanoscale Research Letters, 2020, 15, 89.	5.7	21
32	Aluminium nanoparticles synthesized by a novel wet chemical method and used to enhance the performance of polymer solar cells by the plasmonic effect. Journal of Materials Chemistry C, 2015, 3, 4099-4103.	5.5	20
33	Improved performances of PCDTBT:PC₇₁BM BHJ solar cells through incorporating small molecule donor. Physical Chemistry Chemical Physics, 2015, 17, 26777-26782.	2.8	20
34	The Effects of Improved Photoelectric Properties of PEDOT:PSS by Two-Step Treatments on the Performance of Polymer Solar Cells Based on PTB7-Th:PC₇₁BM. ACS Applied Materials & Interfaces, 2016, 8, 547-552.	8.0	19
35	PEOz-PEDOT:PSS Composite Layer: A Route to Suppressed Hysteresis and Enhanced Open-Circuit Voltage in a Planar Perovskite Solar Cell. ACS Applied Materials & Interfaces, 2018, 10, 25329-25336.	8.0	19
36	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

#	Article	IF	Citations
37	The Electroluminescence Mechanism of Solution-Processed TADF Emitter 4CzIPN Doped OLEDs Investigated by Transient Measurements. Molecules, 2016, 21, 1365.	3.8	18
38	Multicolor Coding Up-Conversion Nanoplatform for Rapid Screening of Multiple Foodborne Pathogens. ACS Applied Materials & Interfaces, 2021, 13, 26782-26789.	8.0	18
39	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. RSC Advances, 2015, 5, 20724-20733.	3.6	17
40	The storage of charges and its optical application in organic light-emitting diodes measured by a transient electroluminescence method. Organic Electronics, 2015, 27, 114-118.	2.6	17
41	Integrated Effects of Two Additives on the Enhanced Performance of PTB7:PC71BM Polymer Solar Cells. Materials, 2016, 9, 171.	2.9	16
42	Benefits of the Hydrophobic Surface for CH3NH3PbI3 Crystalline Growth towards Highly Efficient Inverted Perovskite Solar Cells. Molecules, 2019, 24, 2027.	3.8	16
43	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
44	The colour tuning of upconversion emission from green to red in NaScF 4 :Yb 3+ /Er 3+ nanocrystals by adjusting the reaction time. Journal of Alloys and Compounds, 2017, 699, 1-6.	5.5	15
45	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
46	A Redâ€Emissive Sextuple Hydrogenâ€Bonding Selfâ€Assembly Molecular Duplex Bearing Perylene Diimide Fluorophores for Warmâ€White Organic Lightâ€Emitting Diode Application. Chinese Journal of Chemistry, 2016, 34, 387-396.	4.9	14
47	The luminescence properties of CsPb_xM_{1â^'x}Br₃ perovskite nanocrystals transformed from Cs₄PbBr₆ mediated by various divalent bromide MBr₂ salts. Nanoscale, 2019, 11, 4008-4014.	5.6	14
48	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
49	Enhancing the stability and water resistance of CsPbBr3 perovskite nanocrystals by using tetrafluoride and zinc oxide as protective capsules. Journal of Materials Science, 2020, 55, 9739-9747.	3.7	14
50	Influence of morphology of PCDTBT:PC71BM on the performance of solar cells. Applied Physics A: Materials Science and Processing, 2014, 114, 1361-1368.	2.3	13
51	Solvent-treated PEDOT:PSS on the improvement PTB7 based on polymer solar cells performance. Applied Surface Science, 2015, 353, 1253-1259.	6.1	13
52	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
53	Feasibility of Emission-Enhanced CsPbCl₃ Quantum Dots Co-Doped with Mn²⁺ and Er³⁺ as Luminescent Downshifting Layers in Crystalline Silicon Solar Modules. ACS Applied Nano Materials, 2022, 5, 2522-2531.	5.0	13
54	Enhancement of Upconversion Emissions of NaYF₄:Yb³⁺, Tm³⁺ Nanoparticles by Ba²⁺ Co-Doping. Journal of Nanoscience and Nanotechnology, 2018, 18, 7584-7589.	0.9	12

#	Article	IF	Citations
55	Highly Efficient and Operational Stability Polymer Solar Cells Employing Nonhalogenated Solvents and Additives. ACS Applied Materials & Interfaces, 2018, 10, 24075-24081.	8.0	12
56	CsPbBr₃@CsPbBr_{3â€“x}Cl_x Perovskite Coreâ€“Shell Heterojunction Nanowires via a Postsynthetic Method with HCl Gas. ACS Omega, 2020, 5, 11578-11584.	3.5	12
57	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. Journal of Materials Chemistry C, 2020, 8, 6743-6748.	5.5	12
58	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
59	Effect of the charge balance on high-efficiency inverted polymer light-emitting diodes. Organic Electronics, 2017, 49, 123-128.	2.6	11
60	An additive dripping technique using diphenyl ether for tuning perovskite crystallization for high-efficiency solar cells. Nano Research, 2018, 11, 2648-2657.	10.4	11
61	All-solution processed inverted QLEDs with double hole transport layers and thermal activated delay fluorescent dopant as energy transfer medium. Organic Electronics, 2020, 77, 105544.	2.6	11
62	Radiation hardness and abnormal photoresponse dynamics of the CH₃NH₃PbI₃ perovskite photodetector. Journal of Materials Chemistry C, 2021, 9, 2095-2105.	5.5	11
63	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
64	Investigation on OLEDs efficiency roll-off with interfacial charge storage and their time-resolved emission spectra. Organic Electronics, 2020, 83, 105756.	2.6	10
65	Improving the Charge Carrier Transport and Suppressing Recombination of Soluble Squaraine-Based Solar Cells via Parallel-Like Structure. Materials, 2018, 11, 759.	2.9	9
66	Synergetic Effect of Different Carrier Dynamics in Pm6:Y6:ITIC-M Ternary Cascade Energy Level System. Polymers, 2021, 13, 2398.	4.5	9
67	Organic Halide PEACl for Surface Passivation and Defects Suppression in Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 12411-12420.	5.1	9
68	Highâ€Performance MAPbI₃/PM6:Y6 Perovskite/Organic Hybrid Photodetectors with a Broadband Response. Advanced Optical Materials, 2022, 10, .	7.3	9
69	The electroluminescence mechanism of non-doping PhOLEDs based on CBP/Ir(ppy) 3 investigated by delayed EL measurements. Organic Electronics, 2016, 28, 225-228.	2.6	8
70	Improving the photovoltaic performance of planar heterojunction perovskite solar cells by mixed solvent vapor treatment. RSC Advances, 2018, 8, 11574-11579.	3.6	8
71	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
72	Investigating the evolution of excitons in polymer light-emitting diodes by transient measurement. Organic Electronics, 2019, 68, 45-49.	2.6	8

#	Article	IF	Citations
73	Color-Tunable Organic Light Emitting Diodes for Deep Blue Emission by Regulating the Optical Micro-Cavity. Molecules, 2020, 25, 2867.	3.8	8
74	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
75	Synthesis of Water Dispersible Hexagonal-Phase NaYF₄:Yb, Er Nanoparticles with High Efficient Upconversion Fluorescence. Journal of Nanoscience and Nanotechnology, 2014, 14, 3597-3601.	0.9	7
76	A novel alcohol-soluble squaraine dye as an interfacial layer for efficient polymer solar cells. Organic Electronics, 2019, 69, 241-247.	2.6	7
77	Solvent modification to suppress halide segregation in mixed halide perovskite solar cells. Journal of Materials Science, 2020, 55, 9787-9794.	3.7	7
78	Synergistic function of doping and ligand engineering to enhance the photostability and electroluminescence performance of CsPbBr₃ quantum dots. Nanotechnology, 2021, 32, 325202.	2.6	7
79	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
80	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. ACS Applied Materials & Interfaces, 2021, 13, 61818-61826.	8.0	7
81	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
82	Low-voltage, high transmittance fringe-field switching mode liquid crystal for monitor display. Liquid Crystals, 2014, 41, 755-760.	2.2	6
83	High-performance red electrophosphorescent devices based on all-solution-processed hydrogen-bonded supramolecular material. Journal of Materials Chemistry C, 2018, 6, 4095-4105.	5.5	6
84	Investigation on light-induced storage of charges with capacitance/conductance-voltage and its frequency characteristics. Organic Electronics, 2020, 76, 105425.	2.6	6
85	With PBDB-T as the Donor, the PCE of Non-Fullerene Organic Solar Cells Based on Small Molecule INTIC Increased by 52.4%. Materials, 2020, 13, 1324.	2.9	6
86	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
87	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
88	Study on the influences of quantum well structure on the performance of organic light emitting devices. Displays, 2011, 32, 102-105.	3.7	5
89	Novel porphyrinâ€“phthalocyanine heterodimers and heteropentamers: synthesis, characterization and application in organic solar cells. RSC Advances, 2013, 3, 13259.	3.6	5
90	Improving charge transport and suppressing charge recombination in small molecule ternary solar cells via incorporating Bis-PC 71 BM as a cascade material. Organic Electronics, 2017, 46, 126-132.	2.6	5

#	Article	IF	Citations
91	Improving charge transport by the ultrathin QDs interlayer in polymer solar cells. RSC Advances, 2018, 8, 17914-17920.	3.6	5
92	Partial cation substitution of tunable blueâ€cyanâ€emitting Ba₂B₂O₅:Ce³⁺ for nearâ€UV white LEDs. Journal of the American Ceramic Society, 2019, 102, 6213-6226.	3.8	5
93	Managed carrier density and distribution in solution-processed emission layer to achieve highly efficient and bright blue organic light-emitting devices. Organic Electronics, 2020, 82, 105703.	2.6	5
94	Synergetic interface and morphology modification to achieve highly efficient solution-processed sky-blue organic light-emitting diodes. Organic Electronics, 2020, 83, 105721.	2.6	5
95	Influence of Yb3+ concentration on the upconversion luminescence of oxyfluoride material doped with Er3+. Science China: Physics, Mechanics and Astronomy, 2010, 53, 310-314.	5.1	4
96	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
97	Performance improvements in all-solution processed inverted QLEDs realized by inserting an electron blocking layer. Nanotechnology, 2021, 32, 335204.	2.6	4
98	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
99	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
100	Improved UV sensitivity and charge transport in PTB7-Th:PC₇₁BM solar cells doped with cadmium selenide quantum dots. Sustainable Energy and Fuels, 0, , .	4.9	3
101	The effect of PCBM doping on the electroluminescent performance of organic lightâ€emitting diodes. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 2317-2320.	1.8	2
102	Investigation of excitedâ€state dynamics upon both photoâ€excitation and electroâ€excitation of thermally activated delayed fluorescent molecules. Journal of the Society for Information Display, 2018, 26, 694-699.	2.1	2
103	Biphenyl Triarylamine Hole Transport Material for Highly Efficient and Low-Temperature Solution-Processed pâ€“iâ€“n Perovskite Solar Cells. Journal of Nanoscience and Nanotechnology, 2018, 18, 7374-7379.	0.9	2
104	Optical Capacitance/Conductance-Voltage Characteristics of Stored Charges in Organic Light-Emitting Diodes. Molecules, 2020, 25, 2818.	3.8	2
105	Improved film morphology and reduced defects in solution-processed red phosphorescent emission layer of the organic light-emitting diodes. Synthetic Metals, 2020, 261, 116322.	3.9	2
106	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
107	Interfacial Exciplex Host to Release Interfacial Accumulated Charges for Highly Efficient and Bright Solutionâ€Processed White Organic Lightâ€Emitting Diodes. Advanced Materials Interfaces, 2022, 9, .	3.7	2
108	Deficiencies of the kinetics order method for the study of thermoluminescence. Journal of Applied Physics, 2007, 101, 033518.	2.5	1

#	Article	IF	Citations
109	Investigation of the effects of MoO3 buffer layer on charge carrier injection and extraction by capacitanceâ€“voltage measurement. Science Bulletin, 2014, 59, 747-753.	1.7	1
110	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
111	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
112	3.5: Investigation of excitedâ€state dynamics upon both photoâ€and electroâ€excitation of thermally activated delayed fluorescent molecules. Digest of Technical Papers SID International Symposium, 2018, 49, 29-34.	0.3	0
113	Mechanism of transient inverse pulse current in hybrid perovskite photodetector induced by proton beam irradiation. , 2019, , .		0