Liang Yao

List of Publications by Year
in descending order

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77 papers	5,320 citations	101543 36 h-index	82547 72 g-index
78 all docs	78 docs citations	78 times ranked	4627 citing authors

#	Article	IF	Citations
1	Highly Efficient Nearâ€Infrared Organic Lightâ€Emitting Diode Based on a Butterflyâ€Shaped Donorâ€“Acceptor Chromophore with Strong Solidâ€State Fluorescence and a Large Proportion of Radiative Excitons. Angewandte Chemie - International Edition, 2014, 53, 2119-2123.	13.8	604
2	Achieving a Significantly Increased Efficiency in Nondoped Pure Blue Fluorescent OLED: A Quasiâ€Equivalent Hybridized Excited State. Advanced Functional Materials, 2015, 25, 1755-1762.	14.9	381
3	A Hybridized Local and Chargeâ€Transfer Excited State for Highly Efficient Fluorescent OLEDs: Molecular Design, Spectral Character, and Full Exciton Utilization. Advanced Optical Materials, 2014, 2, 892-901.	7.3	357
4	Highly efficient near ultraviolet organic light-emitting diode based on a meta-linked donorâ€“acceptor molecule. Chemical Science, 2015, 6, 3797-3804.	7.4	245
5	Efficient Deep Blue Electroluminescence with an External Quantum Efficiency of 6.8% and CIE_y < 0.08 Based on a Phenanthroimidazoleâ€“Sulfone Hybrid Donorâ€“Acceptor Molecule. Chemistry of Materials, 2015, 27, 7050-7057.	6.7	239
6	High Yields of Singlet Excitons in Organic Electroluminescence through Two Paths of Cold and Hot Excitons. Advanced Optical Materials, 2014, 2, 510-515.	7.3	216
7	Enhanced proportion of radiative excitons in non-doped electro-fluorescence generated from an imidazole derivative with an orthogonal donorâ€“acceptor structure. Chemical Communications, 2013, 49, 11302.	4.1	198
8	Highly Efficient Solidâ€State Nearâ€Infrared Emitting Material Based on Triphenylamine and Diphenylfumaronitrile with an EQE of 2.58% in Nondoped Organic Lightâ€Emitting Diode. Advanced Functional Materials, 2015, 25, 7521-7529.	14.9	181
9	Excimer-induced high-efficiency fluorescence due to pairwise anthracene stacking in a crystal with long lifetime. Chemical Communications, 2016, 52, 7356-7359.	4.1	164
10	Cu2O photocathodes with band-tail states assisted hole transport for standalone solar water splitting. Nature Communications, 2020, 11, 318.	12.8	139
11	Highly Efficient Nondoped Green Organic Light-Emitting Diodes with Combination of High Photoluminescence and High Exciton Utilization. ACS Applied Materials & Interfaces, 2016, 8, 3041-3049.	8.0	126
12	Highly efficient deep-blue OLED with an extraordinarily narrow FHWM of 35 nm and a y coordinate <0.05 based on a fully twisting donorâ€“acceptor molecule. Journal of Materials Chemistry C, 2014, 2, 4733-4736.	5.5	123
13	Hybridization and de-hybridization between the locally-excited (LE) state and the charge-transfer (CT) state: a combined experimental and theoretical study. Physical Chemistry Chemical Physics, 2016, 18, 24176-24184.	2.8	117
14	Highâ€Efficiency Violetâ€Lightâ€Emitting Materials Based on Phenanthro[9,10â€d]imidazole. Chemistry - A European Journal, 2013, 19, 2602-2605.	3.3	111
15	Reverse intersystem crossing from upper triplet levels to excited singlet: a â€˜hot excitonâ€™ path for organic light-emitting diodes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140318.	3.4	103
16	Progress in next-generation organic electroluminescent materials: material design beyond exciton statistics. Science China Chemistry, 2014, 57, 335-345.	8.2	100
17	An efficient nickel hydrogen oxidation catalyst for hydroxide exchange membrane fuel cells. Nature Materials, 2022, 21, 804-810.	27.5	97
18	Organic Semiconductor Based Devices for Solar Water Splitting. Advanced Energy Materials, 2018, 8, 1802585.	19.5	88

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19	Tailoring Excited-State Properties and Electroluminescence Performance of Donorâ€“Acceptor Molecules through Tuning the Energy Level of the Charge-Transfer State. Journal of Physical Chemistry C, 2015, 119, 17800-17808.	3.1	76
20	Multilayer Polymer Stacking by In Situ Electrochemical Polymerization for Colorâ€Stable White Electroluminescence. Advanced Materials, 2011, 23, 527-530.	21.0	68
21	Insights into the interfacial carrier behaviour of copper ferrite (CuFe₂O₄) photoanodes for solar water oxidation. Journal of Materials Chemistry A, 2019, 7, 1669-1677.	10.3	65
22	Monodisperse Ï€â€“Ï€ Stacking Anthracene Dimer under Pressure: Unique Fluorescence Behaviors and Experimental Determination of Interplanar Distance at Excimer Equilibrium Geometry. Advanced Optical Materials, 2018, 6, 1800085.	7.3	63
23	Interlayer Interactions as Design Tool for Large-Pore COFs. Journal of the American Chemical Society, 2021, 143, 15711-15722.	13.7	60
24	Crossâ€Linked Multifunctional Conjugated Polymers Prepared by In Situ Electrochemical Deposition for a Highlyâ€Efficient Blueâ€Emitting and Electronâ€Transport Layer. Advanced Materials, 2012, 24, 2413-2417.	21.0	57
25	Solution-Processed Ultrathin SnS₂â€“Pt Nanoplates for Photoelectrochemical Water Oxidation. ACS Applied Materials & Interfaces, 2019, 11, 6918-6926.	8.0	57
26	A semiconducting polymer bulk heterojunction photoanode for solar water oxidation. Nature Catalysis, 2021, 4, 431-438.	34.4	48
27	Aromatic S-Heterocycle and Fluorene Derivatives as Solution-Processed Blue Fluorescent Emitters: Structureâ€“Property Relationships for Different Sulfur Oxidation States. Journal of Physical Chemistry C, 2013, 117, 14189-14196.	3.1	47
28	Isomers of Pyreneâ€“Imidazole Compounds: Synthesis and Configuration Effect on Optical Properties. Organic Letters, 2015, 17, 6138-6141.	4.6	47
29	Fluorescence detection of trace TNT by novel cross-linking electropolymerized films both in vapor and aqueous medium. Journal of Hazardous Materials, 2014, 264, 474-480.	12.4	46
30	Solutionâ€Processable Hosts Constructed by Carbazole/PO Substituted Tetraphenylsilanes for Efficient Blue Electrophosphorescent Devices. Advanced Functional Materials, 2014, 24, 5881-5888.	14.9	45
31	Establishing Stability in Organic Semiconductor Photocathodes for Solar Hydrogen Production. Journal of the American Chemical Society, 2020, 142, 7795-7802.	13.7	45
32	Efficient deep-blue non-doped organic light-emitting diode with improved roll-off of efficiency based on hybrid local and charge-transfer excited state. RSC Advances, 2016, 6, 70085-70090.	3.6	44
33	An Efficient AIEâ€Active Blueâ€Emitting Molecule by Incorporating Multifunctional Groups into Tetraphenylsilane. Chemistry - A European Journal, 2014, 20, 7589-7592.	3.3	41
34	Highly Efficient and Fully Solutionâ€Processed White Electroluminescence Based on Fluorescent Small Molecules and a Polar Conjugated Polymer as the Electronâ€Injection Material. Advanced Functional Materials, 2012, 22, 1092-1097.	14.9	39
35	Identifying the efficient inter-conversion between singlet and triplet charge-transfer states by magneto-electroluminescence study. Applied Physics Letters, 2013, 102, .	3.3	38
36	RGB Small Molecules Based on a Bipolar Molecular Design for Highly Efficient Solutionâ€Processed Singleâ€layer OLEDs. Chemistry - A European Journal, 2012, 18, 2707-2714.	3.3	37

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37	A Direct Z-Scheme for the Photocatalytic Hydrogen Production from a Water Ethanol Mixture on CoTiO₃/TiO₂ Heterostructures. ACS Applied Materials & Interfaces, 2021, 13, 449-457.	8.0	37
38	A simple, selective, fluorescent iron(III) sensing material based on peripheral carbazole. Sensors and Actuators B: Chemical, 2014, 191, 332-336.	7.8	36
39	Adjusting Nitrogen Atom Orientations of Pyridine Ring in Tetraphenylsilane-Based Hosts for Highly Efficient Blue Phosphorescent Organic Light-Emitting Devices. ACS Applied Materials & Interfaces, 2016, 8, 24793-24802.	8.0	34
40	Covalent Organic Framework Nanoplates Enable Solution-Processed Crystalline Nanofilms for Photoelectrochemical Hydrogen Evolution. Journal of the American Chemical Society, 2022, 144, 10291-10300.	13.7	33
41	Electroactive Selfâ€Assembled Monolayers for Enhanced Efficiency and Stability of Electropolymerized Luminescent Films and Devices. Advanced Functional Materials, 2011, 21, 2896-2900.	14.9	30
42	Dual-emissive electropolymerization films for the ratiometric fluorescence detection of TNT and TNP with high sensitivity and selectivity. Sensors and Actuators B: Chemical, 2018, 259, 380-386.	7.8	28
43	Novel violet emitting material synthesized by stepwise chemical reactions. Journal of Materials Chemistry C, 2014, 2, 5019.	5.5	27
44	Lead Halide Perovskite Quantum Dots To Enhance the Power Conversion Efficiency of Organic Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 12696-12704.	13.8	27
45	Highly Sensitive and Selective Fluorometric/Electrochemical Dualâ€Channel Sensors for TNT and DNT Explosives. Chemistry - A European Journal, 2014, 20, 11655-11658.	3.3	26
46	Spectroelectrochemical and Chemical Evidence of Surface Passivation at Zinc Ferrite (ZnFe₂O₄) Photoanodes for Solar Water Oxidation. Advanced Functional Materials, 2021, 31, 2010081.	14.9	26
47	Fully solution-processed and multilayer blue organic light-emitting diodes based on efficient small molecule emissive layer and intergrated interlayer optimization. Organic Electronics, 2015, 27, 35-40.	2.6	25
48	Conjugation break spacers and flexible linkers as tools to engineer the properties of semiconducting polymers. Polymer Journal, 2018, 50, 725-736.	2.7	25
49	Fully Conjugated Donorâ€“Acceptor Block Copolymers for Organic Photovoltaics via Heckâ€“Mizoroki Coupling. ACS Macro Letters, 2019, 8, 134-139.	4.8	25
50	A simple sensitive colorimetric/fluorometric probe for iodide. Talanta, 2012, 97, 343-348.	5.5	22
51	Amorphous Ternary Charge-Cascade Molecules for Bulk Heterojunction Photovoltaics. ACS Applied Materials & Interfaces, 2017, 9, 27825-27831.	8.0	22
52	Multiarm and Substituent Effects on Charge Transport of Organic Hole Transport Materials. Chemistry of Materials, 2019, 31, 6605-6614.	6.7	21
53	A hybrid bulk-heterojunction photoanode for direct solar-to-chemical conversion. Energy and Environmental Science, 2021, 14, 3141-3151.	30.8	20
54	Chemistry and materials based on 5,5â€²-bibenzo[c][1,2,5]thiadiazole. Chemical Communications, 2013, 49, 5730.	4.1	18

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55	Cross-linked luminescent films via electropolymerization of multifunctional precursors for highly efficient electroluminescence. Polymer Chemistry, 2013, 4, 2090.	3.9	16
56	Morphology stabilization strategies for small-molecule bulk heterojunction photovoltaics. Journal of Materials Chemistry A, 2017, 5, 17517-17524.	10.3	16
57	Simultaneous enhancement of the carrier mobility and luminous efficiency through thermal annealing a molecular glass material and device. Journal of Materials Chemistry, 2012, 22, 21502.	6.7	13
58	Polarized Thin Layer Deposited Electrochemically on Aluminum-Doped Zinc Oxide as a Cathode Interlayer for Highly Efficient Organic Electronics. ACS Applied Materials & Interfaces, 2016, 8, 26463-26469.	8.0	13
59	Defect engineered nanostructured LaFeO₃ photoanodes for improved activity in solar water oxidation. Journal of Materials Chemistry A, 2021, 9, 2888-2898.	10.3	13
60	Robust Electron Transport Layers via In Situ Cross-Linking of Perylene Diimide and Fullerene for Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 6616-6623.	5.1	11
61	Identifying Reactive Sites and Surface Traps in Chalcopyrite Photocathodes. Angewandte Chemie - International Edition, 2021, 60, 23651-23655.	13.8	11
62	Electrochemical Deposition of Azobenzene-Containing Network Films with High-Contrast and Stable Photoresponse. Macromolecular Rapid Communications, 2016, 37, 610-615.	3.9	10
63	Lead Halide Perovskite Quantum Dots To Enhance the Power Conversion Efficiency of Organic Solar Cells. Angewandte Chemie, 2019, 131, 12826-12834.	2.0	10
64	Generalized Synthesis to Produce Transparent Thin Films of Ternary Metal Oxide Photoelectrodes. ChemSusChem, 2020, 13, 3645-3653.	6.8	10
65	Melt-processing of small molecule organic photovoltaics via bulk heterojunction compatibilization. Green Chemistry, 2018, 20, 2218-2224.	9.0	9
66	Benzodithiopheneâ€Based Spacers for Layered and Quasiâ€Layered Lead Halide Perovskite Solar Cells. ChemSusChem, 2021, 14, 3001-3009.	6.8	8
67	Triphenylamineâ€Substituted Metalloporphyrins for Solutionâ€Processed Bulk Heterojunction Solar Cells: The Effect of the Central Metal Ion on Device Performance. European Journal of Inorganic Chemistry, 2014, 2014, 4852-4857.	2.0	7
68	Catalystâ€Free, Fast, and Tunable Synthesis for Robust Covalent Polymer Network Semiconducting Thin Films. Advanced Functional Materials, 2018, 28, 1706303.	14.9	7
69	Semiconducting alternating multi-block copolymers via a di-functionalized macromonomer approach. Polymer Chemistry, 2017, 8, 824-827.	3.9	6
70	Tuning Napththalenediimide Cations for Incorporation into Ruddlesdenâ€“Popper-Type Hybrid Perovskites. Chemistry of Materials, 0, , .	6.7	6
71	Mixed bipolar fluorescent small molecules for solution processable white light-emitting devices with excellent efficiency roll-off. Journal of Materials Chemistry C, 2013, 1, 7175.	5.5	5
72	Bulk Heterojunction Organic Semiconductor Photoanodes: Tuning Energy Levels to Optimize Electron Injection. ACS Applied Materials & Interfaces, 2022, 14, 8191-8198.	8.0	5

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73	28.2: Invited Paper: Reverse Intersystem Crossing From Highâ€lying Triplet Energy Levels to Excited Singlet: A â€œHot excitionâ€•Path for OLEDs. Digest of Technical Papers SID International Symposium, 2015, 46, 404-407.	0.3	3
74	Identifizierung von reaktiven Zentren und OberflÃchenfallen in Chalkopyritâ€Photokathoden. Angewandte Chemie, 2021, 133, 23843-23847.	2.0	2
75	Low-temperature annealing to enhance efficiency in organic small-molecule solution-processable OLEDs. Semiconductor Science and Technology, 2011, 26, 055016.	2.0	1
76	Organic Semiconductors for Photoelectrochemical Applications. , 0, , .		0
77	Operando Potential-Sensing at the Semiconductor-Liquid Junctions: Tracking the Surface Energetics and Interfacial Kinetics during Photoelectrosynthetic Reactions. , 0, , .		0