Xianfeng Qiao

List of Publications by Year
in descending order

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99 papers	3,558 citations	147801 31 h-index	149698 56 g-index
99 all docs	99 docs citations	99 times ranked	4048 citing authors

#	Article	IF	Citations
1	Highly Efficient Blue Fluorescent OLEDs Based on Upper Level Tripletâ€“Singlet Intersystem Crossing. Advanced Materials, 2019, 31, e1807388.	21.0	288
2	Revealing Underlying Processes Involved in Light Soaking Effects and Hysteresis Phenomena in Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1500279.	19.5	271
3	Highâ€Performance Hybrid White Organic Lightâ€Emitting Diodes with Superior Efficiency/Color Rendering Index/Color Stability and Low Efficiency Rollâ€Off Based on a Blue Thermally Activated Delayed Fluorescent Emitter. Advanced Functional Materials, 2016, 26, 3306-3313.	14.9	154
4	14.7% efficient mesoscopic perovskite solar cells using single walled carbon nanotubes/carbon composite counter electrodes. Nanoscale, 2016, 8, 6379-6385.	5.6	151
5	The role of molybdenum oxide as anode interfacial modification in the improvement of efficiency and stability in organic light-emitting diodes. Organic Electronics, 2008, 9, 985-993.	2.6	144
6	Photovoltaic behaviour of lead methylammonium triiodide perovskite solar cells down to 80 K. Journal of Materials Chemistry A, 2015, 3, 11762-11767.	10.3	135
7	Efficient Roomâ€Temperature Phosphorescence from Organicâ€“Inorganic Hybrid Perovskites by Molecular Engineering. Advanced Materials, 2018, 30, e1707621.	21.0	126
8	Precise Exciton Allocation for Highly Efficient White Organic Lightâ€Emitting Diodes with Low Efficiency Rollâ€Off Based on Blue Thermally Activated Delayed Fluorescent Exciplex Emission. Advanced Optical Materials, 2017, 5, 1700415.	7.3	95
9	Management of Singlet and Triplet Excitons: A Universal Approach to Highâ€Efficiency All Fluorescent WOLEDs with Reduced Efficiency Rollâ€Off Using a Conventional Fluorescent Emitter. Advanced Optical Materials, 2016, 4, 1067-1074.	7.3	84
10	Strategic-tuning of radiative excitons for efficient and stable fluorescent white organic light-emitting diodes. Nature Communications, 2019, 10, 2380.	12.8	84
11	Efficient Deep-Blue Fluorescent OLEDs with a High Exciton Utilization Efficiency from a Fully Twisted Phenanthroimidazoleâ€“Anthracene Emitter. ACS Applied Materials & Interfaces, 2019, 11, 31139-31146.	8.0	78
12	Highly Efficient Deep Blue Aggregation-Induced Emission Organic Molecule: A Promising Multifunctional Electroluminescence Material for Blue/Green/Orange/Red/White OLEDs with Superior Efficiency and Low Roll-Off. ACS Photonics, 2019, 6, 767-778.	6.6	75
13	Efficiency Breakthrough of Fluorescence OLEDs by the Strategic Management of â€œHot Excitonsâ€• at Highly Lying Excitation Triplet Energy Levels. Advanced Functional Materials, 2021, 31, 2106912.	14.9	75
14	Nondoped blue fluorescent organic light-emitting diodes based on benzonitrile-anthracene derivative with 10.06% external quantum efficiency and low efficiency roll-off. Journal of Materials Chemistry C, 2019, 7, 1014-1021.	5.5	74
15	Controlling charge balance and exciton recombination by bipolar host in single-layer organic light-emitting diodes. Journal of Applied Physics, 2010, 108, .	2.5	69
16	Unraveling the Important Role of Highâ€Lying Tripletâ€“Lowest Excited Singlet Transitions in Achieving Highly Efficient Deepâ€Blue AIEâ€Based OLEDs. Advanced Materials, 2021, 33, e2006953.	21.0	66
17	Simple-Structured Phosphorescent Warm White Organic Light-Emitting Diodes with High Power Efficiency and Low Efficiency Roll-off. ACS Applied Materials & Interfaces, 2016, 8, 10093-10097.	8.0	62
18	Managing Excitons and Charges for High-Performance Fluorescent White Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2016, 8, 28780-28788.	8.0	57

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19	Harvesting Triplet Excitons in Lead-Halide Perovskites for Room-Temperature Phosphorescence. Chemistry of Materials, 2019, 31, 2597-2602.	6.7	57
20	Effect of temperature on the efficiency of organometallic perovskite solar cells. Journal of Energy Chemistry, 2015, 24, 729-735.	12.9	54
21	Mechanistic Study on High Efficiency Deep Blue AIEâ€Based Organic Lightâ€Emitting Diodes by Magnetoâ€Electroluminescence. Advanced Functional Materials, 2020, 30, 1908704.	14.9	51
22	Boosting the Photocurrent Density of p-Type Solar Cells Based on Organometal Halide Perovskite-Sensitized Mesoporous NiO Photocathodes. ACS Applied Materials & Interfaces, 2014, 6, 12609-12617.	8.0	50
23	Nonlinear optoelectronic processes in organic optoelectronic devices: Triplet-triplet annihilation and singlet fission. Materials Science and Engineering Reports, 2020, 139, 100519.	31.8	50
24	Observation of hole hopping via dopant in MoOx-doped organic semiconductors: Mechanism analysis and application for high performance organic light-emitting devices. Journal of Applied Physics, 2010, 107, .	2.5	44
25	A soluble nonionic surfactant as electron injection material for high-efficiency inverted bottom-emission organic light emitting diodes. Applied Physics Letters, 2008, 93, 123310.	3.3	39
26	Molecular engineering of two-dimensional hybrid perovskites with broadband emission for white light-emitting diodes. Journal of Materials Chemistry C, 2018, 6, 10301-10307.	5.5	38
27	Improvement of the Electroluminescence Performance of Exciplexâ€Based OLEDs by Effective Utilization of Longâ€Range Coupled Electronâ€“Hole Pairs. Advanced Optical Materials, 2019, 7, 1801648.	7.3	37
28	Effects of bulk and interfacial charge accumulation on fill factor in organic solar cells. Applied Physics Letters, 2013, 102, .	3.3	36
29	Cesium hydroxide doped tris-(8-hydroxyquinoline) aluminum as an effective electron injection layer in inverted bottom-emission organic light emitting diodes. Applied Physics Letters, 2008, 92, .	3.3	35
30	Highâ€Performance, Phosphorescent, Topâ€Emitting Organic Lightâ€Emitting Diodes with pâ€“iâ€“n Homojunctions. Advanced Functional Materials, 2011, 21, 1681-1686.	14.9	35
31	Realizing efficient red thermally activated delayed fluorescence organic light-emitting diodes using phenoxazine/phenothiazine-phenanthrene hybrids. Organic Electronics, 2018, 59, 32-38.	2.6	35
32	Achieving Extreme Utilization of Excitons by an Efficient Sandwich-Type Emissive Layer Architecture for Reduced Efficiency Roll-Off and Improved Operational Stability in Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2016, 8, 3150-3159.	8.0	34
33	Trap-Assisted Enhanced Bias Illumination Stability of Oxide Thin Film Transistor by Praseodymium Doping. ACS Applied Materials & Interfaces, 2019, 11, 5232-5239.	8.0	34
34	Magnetic field effects on the quenching of triplet excitons in exciplex-based organic light emitting diodes. Journal of Materials Chemistry C, 2018, 6, 5721-5726.	5.5	31
35	Electrical pumped energy up-conversion: A non-linear electroluminescence process mediated by triplet-triplet annihilation. Organic Electronics, 2017, 46, 1-6.	2.6	28
36	Improvement of efficiency and its roll-off at high brightness in white organic light-emitting diodes by strategically managing triplet excitons in the emission layer. Journal of Materials Chemistry C, 2018, 6, 10793-10803.	5.5	27

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37	Origin of improvement in device performance via the modification role of cesium hydroxide doped tris(8-hydroxyquinoline) aluminum interfacial layer on ITO cathode in inverted bottom-emission organic light-emitting diodes. Organic Electronics, 2009, 10, 266-274.	2.6	26
38	Organic Solar Cells Based on High Hole Mobility Conjugated Polymer and Nonfullerene Acceptor with Comparable Bandgaps and Suitable Energy Level Offsets Showing Significant Suppression of J_{sc}â€“V_{oc} Tradeâ€Off. Solar Rrl, 2019, 3, 1900079.	5.8	25
39	High Efficiency and Low Rollâ€Off Hybrid WOLEDs by Using a Deep Blue Aggregationâ€Induced Emission Material Simultaneously as Blue Emitter and Phosphor Host. Advanced Optical Materials, 2019, 7, 1801539.	7.3	23
40	Highly efficient charge generation and injection in HAT-CN/TAPC heterojunction for high efficiency tandem organic light-emitting diodes. Organic Electronics, 2020, 83, 105745.	2.6	23
41	Highâ€Performance White Organic Lightâ€Emitting Diodes with High Efficiency, Low Efficiency Rollâ€Off, and Superior Color Stability/Color Rendering Index by Strategic Design of Exciplex Hosts. Advanced Optical Materials, 2019, 7, 1901291.	7.3	22
42	High efficiency blue phosphorescent organic light-emitting diodes with a multiple quantum well structure for reduced efficiency roll-off. Optics Express, 2012, 20, 24411.	3.4	21
43	EL Properties and Exciton Dynamics of Highâ€Performance Dopingâ€Free Hybrid WOLEDs Based on 4Pâ€NPD/Bepp 2 Heterojunction as Blue Emitter. Advanced Optical Materials, 2019, 7, 1900703.	7.3	21
44	High efficiency blue/green/yellow/red fluorescent organic light-emitting diodes sensitized by phosphors: general design rules and electroluminescence performance analysis. Journal of Materials Chemistry C, 2019, 7, 11293-11302.	5.5	21
45	Upper Excited Triplet State-Mediated Intersystem Crossing for Anti-Kashaâ€™s Fluorescence: Potential Application in Deep-Ultraviolet Sensing. Journal of Physical Chemistry C, 2019, 123, 5761-5766.	3.1	21
46	Highly efficient fluorescence/phosphorescence hybrid white organic light-emitting devices based on a bipolar blue emitter to precisely control charges and excitons. Journal of Materials Chemistry C, 2020, 8, 7543-7551.	5.5	20
47	In Situ Quantifying the Physical Parameters Determining the Efficiency of OLEDs Relying on Tripletâ€“Triplet Annihilation Upâ€Conversion. Advanced Optical Materials, 2022, 10, .	7.3	20
48	Tungsten oxide doped N,Nâ€²-di(naphthalen-1-yl)-N,Nâ€²-diphenyl-benzidine as hole injection layer for high performance organic light-emitting diodes. Journal of Applied Physics, 2009, 105, .	2.5	19
49	Superior Efficiency and Low-Efficiency Roll-Off White Organic Light-Emitting Diodes Based on Multiple Exciplexes as Hosts Matched to Phosphor Emitters. ACS Applied Materials & Interfaces, 2019, 11, 31078-31086.	8.0	19
50	Regulating excited state of sulfone-locked triphenylamine heteroaromatics for high-efficiency ultralong room-temperature phosphorescence. Chemical Engineering Journal, 2022, 449, 137834.	12.7	19
51	A Dithienylbenzothiadiazole Pure Red Molecular Emitter with Electron Transport and Exciton Selfâ€Confinement for Nondoped Organic Redâ€Lightâ€Emitting Diodes. Advanced Materials, 2008, 20, 4172-4175.	21.0	18
52	Low sublimation temperature cesium pivalate complex as an efficient electron injection material for organic light-emitting diode devices. Organic Electronics, 2011, 12, 1957-1962.	2.6	18
53	Thermal annealing effect on internal electrical polarization in organic solar cells. Organic Electronics, 2013, 14, 2192-2197.	2.6	18
54	High efficiency and low roll-off all fluorescence white organic light-emitting diodes by the formation of interface exciplex. Organic Electronics, 2019, 67, 72-78.	2.6	18

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55	Precise regulation of the emissive layer for ultra-high performance white organic light-emitting diodes in an exciplex forming co-host system. Materials Chemistry Frontiers, 2019, 3, 640-649.	5.9	17
56	Design and performance study of high efficiency/low efficiency roll-off/high CRI hybrid WOLEDs based on aggregation-induced emission materials as fluorescent emitters. Materials Chemistry Frontiers, 2019, 3, 2652-2658.	5.9	17
57	Properties of Highly Efficient Charge Generation and Transport of Multialternating Organic Heterojunctions and Its Application in Organic Lightâ€Emitting Diodes. Advanced Electronic Materials, 2018, 4, 1800177.	5.1	16
58	High efficiency color-tunable organic light-emitting diodes with ultra-thin emissive layers in blue phosphor doped exciplex. Applied Physics Letters, 2019, 114, .	3.3	15
59	High efficiency blue and color-stable hybrid warm white organic light-emitting diodes based on a thermally activated delayed fluorescent material as an assistant host. Journal of Materials Chemistry C, 2020, 8, 13777-13785.	5.5	15
60	High efficiency and long lifetime fluorescent organic light-emitting diodes based on cascaded energy transfer processes to efficiently utilize triplet excitons via sensitizer. Organic Electronics, 2020, 84, 105824.	2.6	15
61	Exceptionally efficient deep blue anthracene-based luminogens: design, synthesis, photophysical, and electroluminescent mechanisms. Science Bulletin, 2021, 66, 2090-2098.	9.0	15
62	High efficiency organic light-emitting diodes based on HAT-CN/TAPC heterojunction charge generation layer as charge injectors. Semiconductor Science and Technology, 2019, 34, 105010.	2.0	14
63	Investigation on the mechanism of charge generation in organic heterojunctions: Analysis of Iâ€“V and Câ€“V characteristics. Organic Electronics, 2021, 88, 105979.	2.6	14
64	Highly efficient inverted organic light-emitting diodes using composite organic heterojunctions as electrode-independent injectors. Journal of Materials Chemistry C, 2016, 4, 8731-8737.	5.5	12
65	Triplet-triplet annihilation effects in rubrene/C60 OLEDs with electroluminescence turn-on breaking the thermodynamic limit. Nature Communications, 2019, 10, 4683.	12.8	12
66	High efficiency warm white organic light-emitting diodes with precise confinement of charge carriers and excitons in the exciplex host system. Journal of Materials Chemistry C, 2019, 7, 7114-7120.	5.5	12
67	Simultaneous high efficiency/CRI/spectral stability and low efficiency roll-off hybrid white organic light-emitting diodes via simple insertion of ultrathin red/green phosphorescent emitters in a blue exciplex. Journal of Materials Chemistry C, 2020, 8, 12450-12456.	5.5	12
68	Trap-free space-charge-limited electron transport in amorphous tin(IV) phthalocyanine dichloride thin film. Journal Physics D: Applied Physics, 2010, 43, 215402.	2.8	11
69	An inversion of magnetic field effects in electromer-based organic light-emitting diodes. Journal of Materials Chemistry C, 2019, 7, 1035-1041.	5.5	11
70	High efficiency and low efficiency roll-off all fluorescent white organic light-emitting diodes based on phosphor sensitization. Journal of Materials Chemistry C, 2020, 8, 1666-1672.	5.5	11
71	High-performance white organic light-emitting diodes with doping-free device architecture based on the exciton adjusting interfacial exciplex. Journal of Materials Chemistry C, 2020, 8, 7019-7025.	5.5	11
72	A Promising Multifunctional Deepâ€Blue Fluorophor for Highâ€Performance Monochromatic and Hybrid White OLEDs with Superior Efficiency/Color Stability and Low Efficiency Rollâ€Off. Advanced Optical Materials, 2022, 10, .	7.3	11

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73	Novel deep-blue hot exciton material for high-efficiency nondoped organic light-emitting diodes. Journal of Materials Chemistry C, 2022, 10, 6596-6602.	5.5	11
74	Novel strategy to improve the efficiency roll-off at high luminance and operational lifetime of hybrid white OLEDs via employing an assistant layer with tripletâ€“triplet annihilation up-conversion characteristics. Journal of Materials Chemistry C, 2020, 8, 6577-6586.	5.5	10
75	C₇₀/Pentacene Organic Heterojunction as Charge Generator to Realize Highly Efficient Charge Carrier Injection in Organic Lightâ€Emitting Diodes: Performance and Mechanism Analysis. Advanced Materials Interfaces, 2016, 3, 1600081.	3.7	9
76	Highly efficient charge generation and electron injection of m-MTDATA/m-MTDATA:HAT-CN/HAT-CN organic heterojunction on ITO cathode for high efficiency inverted white organic light-emitting diodes. Journal of Applied Physics, 2017, 122, 125501.	2.5	9
77	Effect of the molecular weight of poly(3-hexylthiophene) on the performance of solid-state dye-sensitized solar cells. RSC Advances, 2013, 3, 14037.	3.6	8
78	Highly efficient inverted organic light-emitting diodes with organic p-n junction as electron injection layer. Organic Electronics, 2018, 58, 185-190.	2.6	8
79	In-situ investigation of interfacial effects on charge accumulation and extraction in organic solar cells based on transient photocurrent studies. Organic Electronics, 2014, 15, 1624-1630.	2.6	7
80	C70/C70:pentacene/pentacene organic heterojunction as the connecting layer for high performance tandem organic light-emitting diodes: Mechanism investigation of electron injection and transport. Journal of Applied Physics, 2017, 121, 115502.	2.5	7
81	Energy level modulation of donorâ€“acceptor alternating random conjugated copolymers for achieving high-performance polymer solar cells. Journal of Materials Chemistry C, 2019, 7, 15335-15343.	5.5	7
82	High efficiency doping-free warm-white organic light-emitting diodes with strategic-tuning of radiative excitons by combining interfacial exciplex with multi-ultrathin emissive layers. Organic Electronics, 2020, 85, 105876.	2.6	7
83	High efficiency and long lifetime fluorescent white organic light-emitting diodes by phosphor sensitization to strategically manage singlet and triplet excitons. Journal of Materials Chemistry C, 2021, 9, 3626-3634.	5.5	7
84	Inter-triplet spinâ€“spin interaction effects on inter-conversion between different spin states in intermediate tripletâ€“triplet pairs towards singlet fission. Organic Electronics, 2014, 15, 2168-2172.	2.6	5
85	Airâ€Processed Perovskite Films with Innerâ€toâ€Outside Passivation for Highâ€Efficiency Solar Cells. Solar Rrl, 2020, 4, 2000410.	5.8	5
86	High efficiency, low efficiency roll-off and long lifetime fluorescent white organic light-emitting diodes based on strategic management of triplet excitons via tripletâ€“triplet annihilation up-conversion and phosphor sensitization. Journal of Materials Chemistry C, 2020, 8, 8077-8084.	5.5	5
87	High efficiency and color quality undoped phosphorescent white organic light-emitting diodes based on simple ultrathin structure in exciplex. Organic Electronics, 2020, 85, 105821.	2.6	5
88	Exciton Regulation for Organic Light-Emitting Diodes with Improved Efficiency and Roll-Off by Managing the Bipolar Spacer Layers Based on Interfacial Exciplexes. ACS Applied Electronic Materials, 2022, 4, 3088-3098.	4.3	5
89	Trap-induced photoconductivity in singlet fission pentacene diodes. Applied Physics Letters, 2014, 105, 033303.	3.3	4
90	Magnetoâ€Electroluminescence Studies on the Role of Intermolecular Spinâ€“Orbital Coupling Processes for the Transition between Singlet and Triplet Excitons in Exciplexâ€Based Phosphorescent Organic Lightâ€Emitting Diodes. Advanced Optical Materials, 2020, 8, 2000991.	7.3	4

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91	Effect of the relationship between the energy levels of host and guest on EL performance of phosphorescence organic light-emitting diodes. Organic Electronics, 2021, 93, 106128.	2.6	3
92	Lead(IV) dioxide: an effective electron injection material to realize high-efficiency inverted top-emitting organic light-emitting diodes. Semiconductor Science and Technology, 2009, 24, 105027.	2.0	2
93	High efficiency hybrid white organic light-emitting diodes based on a simple and efficient exciton regulation emissive layer structure. RSC Advances, 2018, 8, 40883-40893.	3.6	2
94	Correlated magnetic field effects on carriers and excitons in single-carrier exciplex-based organic photodiodes. Physical Chemistry Chemical Physics, 2019, 21, 26413-26419.	2.8	2
95	Efficient exciton regulation for high-performance hybrid white organic light-emitting diodes with superior efficiency/CRI/color stability based on blue aggregation-induced emission fluorophor. Organic Electronics, 2022, 101, 106425.	2.6	2
96	Solid experimental evidence for reverse intersystem crossing from high-lying triplet states: A case study on hot exciton mechanism in OLEDs. Applied Physics Letters, 2022, 120, 083501.	3.3	2
97	Observation of Vibrational Phosphorescence Peaks at Room Temperature and Their Impacts on Tripletâ€“Triplet Annihilation. Advanced Optical Materials, 0, , 2200074.	7.3	2
98	Visualizing the exciton formation channel in exciplex-based organic light-emitting diodes. Organic Electronics, 2022, 105, 106497.	2.6	2
99	Improved transient electroluminescence technique based on time-correlated single-photon counting technology to evaluate organic mobility. Frontiers of Optoelectronics, 2022, 15, 1.	3.7	2