Dongcheng Chen

List of Publications by Year
in descending order

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65 papers	3,991 citations	101543 36 h-index	114465 63 g-index
65 all docs	65 docs citations	65 times ranked	4038 citing authors

#	Article	IF	Citations
1	Evaporationâ€•and Solutionâ€Processâ€Feasible Highly Efficient Thianthreneâ€9,9â€²,10,10â€²â€Tetraoxideâ€Based Thermally Activated Delayed Fluorescence Emitters with Reduced Efficiency Rollâ€Off. Advanced Materials, 2016, 28, 181-187.	21.0	291
2	Highâ€Performance Colorâ€Tunable Perovskite Light Emitting Devices through Structural Modulation from Bulk to Layered Film. Advanced Materials, 2017, 29, 1603157.	21.0	218
3	â€œRate-limited effectâ€•of reverse intersystem crossing process: the key for tuning thermally activated delayed fluorescence lifetime and efficiency roll-off of organic light emitting diodes. Chemical Science, 2016, 7, 4264-4275.	7.4	212
4	Triâ€Spiral Donor for High Efficiency and Versatile Blue Thermally Activated Delayed Fluorescence Materials. Angewandte Chemie - International Edition, 2019, 58, 11301-11305.	13.8	198
5	A highly soluble, crystalline covalent organic framework compatible with device implementation. Chemical Science, 2019, 10, 1023-1028.	7.4	173
6	Horizontally Orientated Sticklike Emitters: Enhancement of Intrinsic Out-Coupling Factor and Electroluminescence Performance. Chemistry of Materials, 2017, 29, 8630-8636.	6.7	164
7	Nitrogen heterocycle-containing materials for highly efficient phosphorescent OLEDs with low operating voltage. Journal of Materials Chemistry C, 2014, 2, 9565-9578.	5.5	152
8	Pyridineâ€Containing Electronâ€Transport Materials for Highly Efficient Blue Phosphorescent OLEDs with Ultralow Operating Voltage and Reduced Efficiency Rollâ€Off. Advanced Functional Materials, 2014, 24, 3268-3275.	14.9	127
9	A Series of New Mediumâ€Bandgap Conjugated Polymers Based on Naphtho[1,2â€c:5,6â€c]bis(2â€octylâ€[1,2,3]triazole) for Highâ€Performance Polymer Solar Cells. Advanced Materials, 2013, 25, 3683-3688.	21.0	125
10	Highâ€Efficiency WOLEDs with High Colorâ€Rendering Index based on a Chromaticityâ€Adjustable Yellow Thermally Activated Delayed Fluorescence Emitter. Advanced Materials, 2016, 28, 4614-4619.	21.0	120
11	Fluorescent Organic Planar pn Heterojunction Lightâ€Emitting Diodes with Simplified Structure, Extremely Low Driving Voltage, and High Efficiency. Advanced Materials, 2016, 28, 239-244.	21.0	115
12	Blue thermally activated delayed fluorescence materials based on bis(phenylsulfonyl)benzene derivatives. Chemical Communications, 2015, 51, 16353-16356.	4.1	112
13	Adamantaneâ€Substituted Acridine Donor for Blue Dual Fluorescence and Efficient Organic Lightâ€Emitting Diodes. Angewandte Chemie - International Edition, 2019, 58, 582-586.	13.8	111
14	Highly Efficient Spiro[fluorene-9,9â€²-thioxanthene] Core Derived Blue Emitters and Fluorescent/Phosphorescent Hybrid White Organic Light-Emitting Diodes. Chemistry of Materials, 2015, 27, 1100-1109.	6.7	107
15	Recombination Dynamics Study on Nanostructured Perovskite Lightâ€Emitting Devices. Advanced Materials, 2018, 30, e1801370.	21.0	102
16	Study of Configuration Differentia and Highly Efficient, Deepâ€Blue, Organic Lightâ€Emitting Diodes Based on Novel Naphtho[1,2â€d]imidazole Derivatives. Advanced Functional Materials, 2015, 25, 5190-5198.	14.9	91
17	Structureâ€“Performance Investigation of Thioxanthone Derivatives for Developing Color Tunable Highly Efficient Thermally Activated Delayed Fluorescence Emitters. ACS Applied Materials & Interfaces, 2016, 8, 8627-8636.	8.0	89
18	Spiral Donor Design Strategy for Blue Thermally Activated Delayed Fluorescence Emitters. ACS Applied Materials & Interfaces, 2021, 13, 5302-5311.	8.0	78

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19	Modulation of Exciton Generation in Organic Active Planar pn Heterojunction: Toward Low Driving Voltage and Highâ€Efficiency OLEDs Employing Conventional and Thermally Activated Delayed Fluorescent Emitters. Advanced Materials, 2016, 28, 6758-6765.	21.0	77
20	Achieving Efficient Triplet Exciton Utilization with Large Î”E_{ST} and Nonobvious Delayed Fluorescence by Adjusting Excited State Energy Levels. Journal of Physical Chemistry Letters, 2018, 9, 4725-4731.	4.6	69
21	Interlayer Interaction Enhancement in Ruddlesdenâ€“Popper Perovskite Solar Cells toward High Efficiency and Phase Stability. ACS Energy Letters, 2019, 4, 1025-1033.	17.4	64
22	An ideal universal host for highly efficient full-color, white phosphorescent and TADF OLEDs with a simple and unified structure. Journal of Materials Chemistry C, 2017, 5, 10406-10416.	5.5	63
23	Efficient solution-processed red all-fluorescent organic light-emitting diodes employing thermally activated delayed fluorescence materials as assistant hosts: molecular design strategy and exciton dynamic analysis. Journal of Materials Chemistry C, 2017, 5, 5223-5231.	5.5	62
24	Polarity-Tunable Host Materials and Their Applications in Thermally Activated Delayed Fluorescence Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2016, 8, 27920-27930.	8.0	59
25	Non-noble-metal-based organic emitters for OLED applications. Materials Science and Engineering Reports, 2020, 142, 100581.	31.8	55
26	Efficient exciplex organic light-emitting diodes with a bipolar acceptor. Organic Electronics, 2015, 25, 79-84.	2.6	53
27	J-Aggregation Enhances the Electroluminescence Performance of a Sky-Blue Thermally Activated Delayed-Fluorescence Emitter in Nondoped Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2020, 12, 2717-2723.	8.0	52
28	Coâ€Interlayer Engineering toward Efficient Green Quasiâ€Twoâ€Dimensional Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2020, 30, 1910167.	14.9	52
29	Deep blue fluorophores incorporating sulfone-locked triphenylamine: the key for highly efficient fluorescenceâ€“phosphorescence hybrid white OLEDs with simplified structure. Journal of Materials Chemistry C, 2015, 3, 6986-6996.	5.5	48
30	Electrochemical biosensing platforms using poly-cyclodextrin and carbon nanotube composite. Biosensors and Bioelectronics, 2010, 26, 295-298.	10.1	47
31	Novel Cathode Interlayers Based on Neutral Alcoholâ€Soluble Small Molecules with a Triphenylamine Core Featuring Polar Phosphonate Side Chains for Highâ€Performance Polymer Lightâ€Emitting and Photovoltaic Devices. Macromolecular Rapid Communications, 2013, 34, 595-603.	3.9	44
32	An Effective Strategy toward Highâ€Efficiency Fluorescent OLEDs by Radiative Coupling of Spatially Separated Electronâ€“Hole Pairs. Advanced Materials Interfaces, 2018, 5, 1800025.	3.7	44
33	Pyridinium salt-based molecules as cathode interlayers for enhanced performance in polymer solar cells. Journal of Materials Chemistry A, 2013, 1, 3387.	10.3	43
34	Predicting Operational Stability for Organic Lightâ€Emitting Diodes with Exciplex Cohosts. Advanced Science, 2019, 6, 1802246.	11.2	42
35	Highly efficient and solution-processed iridium complex for single-layer yellow electrophosphorescent diodes. Journal of Materials Chemistry, 2012, 22, 23005.	6.7	40
36	Incorporation of rubidium cations into blue perovskite quantum dot light-emitting diodes via FABr-modified multi-cation hot-injection method. Nanoscale, 2019, 11, 1295-1303.	5.6	36

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37	9,9-Diphenyl-thioxanthene derivatives as host materials for highly efficient blue phosphorescent organic light-emitting diodes. Journal of Materials Chemistry C, 2015, 3, 9999-10006.	5.5	34
38	Structure-simplified and highly efficient deep blue organic light-emitting diodes with reduced efficiency roll-off at extremely high luminance. Chemical Communications, 2016, 52, 14454-14457.	4.1	29
39	Combined optimization of emission layer morphology and hole-transport layer for enhanced performance of perovskite light-emitting diodes. Journal of Materials Chemistry C, 2017, 5, 6169-6175.	5.5	28
40	Triâ€Spiral Donor for High Efficiency and Versatile Blue Thermally Activated Delayed Fluorescence Materials. Angewandte Chemie, 2019, 131, 11423-11427.	2.0	28
41	Three pyrido[2,3,4,5-lmn]phenanthridine derivatives and their large band gap copolymers for organic solar cells. Journal of Materials Chemistry A, 2014, 2, 321-325.	10.3	26
42	Highly efficient blue and warm white organic light-emitting diodes with a simplified structure. Nanotechnology, 2016, 27, 124001.	2.6	26
43	Nonaromatic Amine Containing Exciplex for Thermally Activated Delayed Fluorescent Electroluminescence. Advanced Optical Materials, 2019, 7, 1801554.	7.3	26
44	High-performance and stable CsPbBr₃ light-emitting diodes based on polymer additive treatment. RSC Advances, 2019, 9, 27684-27691.	3.6	25
45	Rational utilization of intramolecular and intermolecular hydrogen bonds to achieve desirable electron transporting materials with high mobility and high triplet energy. Journal of Materials Chemistry C, 2016, 4, 1482-1489.	5.5	23
46	Sky-blue thermally activated delayed fluorescence material employing a diphenylethyne acceptor for organic light-emitting diodes. Journal of Materials Chemistry C, 2018, 6, 36-42.	5.5	23
47	Adamantaneâ€Substituted Acridine Donor for Blue Dual Fluorescence and Efficient Organic Lightâ€Emitting Diodes. Angewandte Chemie, 2019, 131, 592-596.	2.0	22
48	Highly Improved Efficiency of Deep-Blue Fluorescent Polymer Light-Emitting Device Based on a Novel Hole Interface Modifier with 1,3,5-Triazine Core. ACS Applied Materials & Interfaces, 2015, 7, 26405-26413.	8.0	21
49	Synthesis and optoelectronic properties of amino-functionalized carbazole-based conjugated polymers. Science China Chemistry, 2013, 56, 1119-1128.	8.2	17
50	Improving the efficiency and spectral stability of white-emitting polycarbazoles by introducing a dibenzothiophene-S,S-dioxide unit into the backbone. Journal of Materials Chemistry C, 2014, 2, 7881.	5.5	17
51	Phosphor-doping enhanced efficiency in bilayer organic solar cells due to longer exciton diffusion length. Journal of Luminescence, 2014, 151, 193-196.	3.1	15
52	Engineering the excited-state properties of purely organic intramolecular and intermolecular charge transfer emitters towards high-performance fluorescent OLEDs. Journal of Materials Chemistry C, 2017, 5, 10991-11000.	5.5	14
53	A water-processable organic electron-selective layer for solution-processed inverted organic solar cells. Applied Physics Letters, 2014, 104, 053304.	3.3	12
54	Tuning color-correlated temperature and color rendering index of phosphorescent white polymer light-emitting diodes: Towards healthy solid-state lighting. Organic Electronics, 2016, 34, 18-22.	2.6	12

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55	TICT based fluorescent probe with excellent photostability for real-time and long-term imaging of lipid droplets. Tetrahedron Letters, 2019, 60, 1880-1884.	1.4	9
56	Dibenzothiophene- S,S -dioxide based medium-band-gap polymers for efficient bulk heterojunction solar cells. Organic Electronics, 2014, 15, 2950-2958.	2.6	8
57	Solution-processed cathode-interlayer-free deep blue organic light-emitting diodes. Organic Electronics, 2014, 15, 1197-1204.	2.6	8
58	Synthesis, Properties, Calculations and Applications of Small Molecular Host Materials Containing Oxadiazole Units with Different Nitrogen and Oxygen Atom Orientations for Solution-Processable Blue Phosphorescent OLEDs. Electronic Materials Letters, 2018, 14, 89-100.	2.2	8
59	The dibenzothiophene-S,S-dioxide and spirobifluorene based small molecules promote Low roll-off and Blue organic light-emitting diodes. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 382, 111946.	3.9	6
60	Highly efficient non-doped single-layer blue organic light-emitting diodes based on light-emitting conjugated polymers containing trifluoren-2-ylamine and dibenzothiophene-S,S-dioxide. Synthetic Metals, 2015, 205, 228-235.	3.9	5
61	Enhanced performances of planar heterojunction organic light-emitting diodes via diluting an n-type transporter into a carbazole-based matrix. Journal of Materials Chemistry C, 2018, 6, 29-35.	5.5	5
62	Conjugated polymers containing trifluoren-2-ylamine, trifluoren-2-ylbenzene and trifluoren-2-yltriazine for electroluminescence. Polymer, 2013, 54, 162-173.	3.8	4
63	Alternative Carrier Injection/Extraction Inspired by Electrode Interlayers Based on Peripheral Modification of the Electron-Rich Skeleton. ACS Applied Materials & Interfaces, 2015, 7, 3133-3141.	8.0	4
64	Influence of fullerene-based acceptor materials on the performance of indacenodithiophene-cored small molecule bulk heterojunction organic solar cells. Journal of Materials Science: Materials in Electronics, 2017, 28, 5006-5013.	2.2	1
65	Engineering the Excited-States of Intermolecular Charge Transfer Emitters Towards High-Performance OLEDs. , 2019, , .		0