

Wen-Cheng Chen

List of Publications by Year in descending order

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79
papers

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citations

117453

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2753
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#	ARTICLE	IF	CITATIONS
1	Red/Near-Infrared Thermally Activated Delayed Fluorescence OLEDs with Near 100% Internal Quantum Efficiency. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 14660-14665.	7.2	247
2	Manipulation of Molecular Aggregation States to Realize Polymorphism, AIE, MCL, and TADF in a Single Molecule. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 12473-12477.	7.2	171
3	Blue-emitting organic electrofluorescence materials: progress and prospective. <i>Journal of Materials Chemistry C</i> , 2015, 3, 10957-10963.	2.7	153
4	Achieving efficient violet-blue electroluminescence with CIE _y <math><lt;0.06</math> and EQE >6% from naphthyl-linked phenanthroimidazole-carbazole hybrid fluorophores. <i>Chemical Science</i> , 2017, 8, 3599-3608.	3.7	145
5	Organic Light-Emitting Diodes Based on Imidazole Semiconductors. <i>Advanced Optical Materials</i> , 2018, 6, 1800258.	3.6	110
6	Highly Efficient Deep-Blue Electroluminescence from a Charge-Transfer Emitter with Stable Donor Skeleton. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 7331-7338.	4.0	91
7	Staggered Face-to-Face Molecular Stacking as a Strategy for Designing Deep-Blue Electroluminescent Materials with High Carrier Mobility. <i>Advanced Optical Materials</i> , 2014, 2, 626-631.	3.6	86
8	Novel Bipolar Phenanthroimidazole Derivative Design for a Nondoped Deep-Blue Emitter with High Singlet Exciton Yields. <i>Advanced Optical Materials</i> , 2015, 3, 1215-1219.	3.6	84
9	Molecular modification on bisphenanthroimidazole derivative for deep-blue organic electroluminescent material with ambipolar property and high performance. <i>Organic Electronics</i> , 2015, 17, 159-166.	1.4	80
10	Intrinsically Cancer-Mitochondria-Targeted Thermally Activated Delayed Fluorescence Nanoparticles for Two-Photon-Activated Fluorescence Imaging and Photodynamic Therapy. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 41051-41061.	4.0	73
11	Aromatically C6- and C9-Substituted Phenanthro[9,10- <i>cd</i>]imidazole Blue Fluorophores: Structure-Property Relationship and Electroluminescent Application. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 26268-26278.	4.0	69
12	High-Performance, Simplified Fluorescence and Phosphorescence Hybrid White Organic Light-Emitting Devices Allowing Complete Triplet Harvesting. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 26135-26142.	4.0	68
13	Organic nanostructures of thermally activated delayed fluorescent emitters with enhanced intersystem crossing as novel metal-free photosensitizers. <i>Chemical Communications</i> , 2016, 52, 11744-11747.	2.2	68
14	Rare earth-free composites of carbon dots/metal-organic frameworks as white light emitting phosphors. <i>Journal of Materials Chemistry C</i> , 2019, 7, 2207-2211.	2.7	68
15	Near-Infrared Thermally Activated Delayed Fluorescence Nanoparticle: A Metal-Free Photosensitizer for Two-Photon-Activated Photodynamic Therapy at the Cell and Small Animal Levels. <i>Small</i> , 2022, 18, e2106215.	5.2	61
16	Deep-Red/Near-Infrared Electroluminescence from Single-Component Charge-Transfer Complex via Thermally Activated Delayed Fluorescence Channel. <i>Advanced Functional Materials</i> , 2019, 29, 1903112.	7.8	59
17	Bipolar Blue Host Emitter with Unity Quantum Yield Allows Full Exciton Radiation in Single-Emissive-Layer Hybrid White Organic Light-Emitting Diodes. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 11691-11698.	4.0	59
18	Modulation of Solid-State Aggregation of Square-Planar Pt(II) Based Emitters: Enabling Highly Efficient Deep-Red/Near Infrared Electroluminescence. <i>Advanced Functional Materials</i> , 2020, 30, 2002494.	7.8	59

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19	<i>De novo</i> design of π -A molecules as universal hosts for monochrome and white phosphorescent organic light-emitting diodes. <i>Chemical Science</i> , 2018, 9, 4062-4070.	3.7	58
20	Tuning electrical properties of phenanthroimidazole derivatives to construct multifunctional deep-blue electroluminescent materials. <i>Journal of Materials Chemistry C</i> , 2018, 6, 3584-3592.	2.7	57
21	Efficient Orange-Red Thermally Activated Delayed Fluorescence Emitters Feasible for Both Thermal Evaporation and Solution Process. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 29086-29093.	4.0	57
22	Self-Assembly of Electron Donor-Acceptor-Based Carbazole Derivatives: Novel Fluorescent Organic Nanoprobes for Both One- and Two-Photon Cellular Imaging. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 11355-11365.	4.0	56
23	High performance low-dimensional perovskite solar cells based on a one dimensional lead iodide perovskite. <i>Journal of Materials Chemistry A</i> , 2019, 7, 8811-8817.	5.2	54
24	The Development of Phenanthroimidazole Derivatives in Blue-Emitting Organic Electroluminescence. <i>Science of Advanced Materials</i> , 2015, 7, 2193-2205.	0.1	54
25	Acene-based organic semiconductors for organic light-emitting diodes and perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2018, 6, 9017-9029.	2.7	50
26	Manipulation of Molecular Aggregation States to Realize Polymorphism, AIE, MCL, and TADF in a Single Molecule. <i>Angewandte Chemie</i> , 2018, 130, 12653-12657.	1.6	49
27	Deep-Blue OLEDs with Rec.2020 Blue Gamut Compliance and EQE Over 22% Achieved by Conformation Engineering. <i>Advanced Materials</i> , 2022, 34, e2200537.	11.1	46
28	A meta-molecular tailoring strategy towards an efficient violet-blue organic electroluminescent material. <i>RSC Advances</i> , 2015, 5, 18067-18074.	1.7	45
29	Anthracene-based fluorescent emitters toward superior-efficiency nondoped TTA-OLEDs with deep blue emission and low efficiency roll-off. <i>Chemical Engineering Journal</i> , 2021, 421, 127748.	6.6	43
30	Red/Near-Infrared Thermally Activated Delayed Fluorescence OLEDs with Near 100% Internal Quantum Efficiency. <i>Angewandte Chemie</i> , 2019, 131, 14802-14807.	1.6	40
31	Amplifying Free Radical Generation of AIE Photosensitizer with Small Singlet-Triplet Splitting for Hypoxia-Overcoming Photodynamic Therapy. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 5112-5121.	4.0	40
32	A novel π -A blue fluorophore based on [1,2,4]triazolo[1,5- <i>a</i>]pyridine as an electron acceptor and its application in organic light-emitting diodes. <i>Materials Chemistry Frontiers</i> , 2019, 3, 1071-1079.	3.2	37
33	Modulating the acceptor structure of dicyanopyridine based TADF emitters: Nearly 30% external quantum efficiency and suppression on efficiency roll-off in OLED. <i>Chemical Engineering Journal</i> , 2020, 401, 126107.	6.6	37
34	Nanosecond-time-scale delayed fluorescence towards fast triplet-singlet spin conversion for efficient orange-red OLEDs with negligible efficiency roll-off. <i>Chemical Engineering Journal</i> , 2021, 415, 128949.	6.6	36
35	Isomerization enhanced quantum yield of dibenzo[<i>a,c</i>]phenazine-based thermally activated delayed fluorescence emitters for highly efficient orange OLEDs. <i>Journal of Materials Chemistry C</i> , 2020, 8, 9639-9645.	2.7	31
36	A novel spiro-annulated benzimidazole host for highly efficient blue phosphorescent organic light-emitting devices. <i>Chemical Communications</i> , 2018, 54, 4541-4544.	2.2	30

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37	Alkoxy chain regulated stimuli-responsive AIE luminogens based on tetraphenylethylene substituted phenanthroimidazoles and non-doped OLEDs with negligible efficiency roll-off. <i>Journal of Materials Chemistry C</i> , 2020, 8, 4139-4147.	2.7	29
38	Isomeric thermally activated delayed fluorescence emitters based on indolo[2,3- <i>b</i>]acridine electron-donor: a compromising optimization for efficient orange-red organic light-emitting diodes. <i>Journal of Materials Chemistry C</i> , 2019, 7, 2898-2904.	2.7	28
39	Methoxy substituents activated carbazole-based boron dimesityl TADF emitters. <i>Journal of Materials Chemistry C</i> , 2020, 8, 4780-4788.	2.7	28
40	Mechanochromic luminescence and color-tunable light-emitting devices of triphenylamine functionalized benzo[<i>d</i> , <i>e</i>]benzo[4,5]imidazo[2,1- <i>a</i>]isoquinolin-7-one. <i>Journal of Materials Chemistry C</i> , 2019, 7, 9808-9812.	2.7	27
41	Deep-blue organic light-emitting diodes based on push-pull π -extended imidazole-fluorene hybrids. <i>Dyes and Pigments</i> , 2021, 184, 108754.	2.0	27
42	Achieving high singlet-oxygen generation by applying the heavy-atom effect to thermally activated delayed fluorescent materials. <i>Chemical Communications</i> , 2021, 57, 4902-4905.	2.2	27
43	A pyridine based meta-linking deep-blue emitter with high conjugation extent and electroluminescence efficiencies. <i>Journal of Materials Chemistry C</i> , 2016, 4, 6249-6255.	2.7	26
44	A Bipolar Transporter as an Efficient Green Fluorescent Emitter and Host for Red Phosphors in Multi-layer Organic Light-Emitting Diodes. <i>Chemistry - A European Journal</i> , 2014, 20, 13762-13769.	1.7	25
45	Removing shortcomings of linear molecules to develop high efficiencies deep-blue organic electroluminescent materials. <i>Organic Electronics</i> , 2016, 38, 323-329.	1.4	25
46	Multifunctional anionic indium-organic frameworks for organic dye separation, white-light emission and dual-emitting Fe ³⁺ sensing. <i>Journal of Materials Chemistry C</i> , 2019, 7, 14897-14903.	2.7	25
47	High Performance NIR OLEDs with Low Efficiency Roll-Off by Leveraging Os(II) Phosphors and Exciplex Co-Host. <i>Advanced Functional Materials</i> , 2021, 31, 2102787.	7.8	25
48	Aggregation-state engineering and emission switching in $\text{D}^{\text{A}}\text{A}^{\text{D}}\text{A}^{\text{E}}\text{2}$ AIEgens featuring dual emission, MCL and white electroluminescence. <i>Journal of Materials Chemistry C</i> , 2020, 8, 8061-8068.	2.7	25
49	Polyphenylanthracene as a Novel Building Block for High-Performance Deep-Blue Organic Light-Emitting Devices. <i>Advanced Optical Materials</i> , 2018, 6, 1700855.	3.6	23
50	Deep-blue high-efficiency triplet-triplet annihilation organic light-emitting diodes using donor- and acceptor-modified anthracene fluorescent emitters. <i>Materials Today Energy</i> , 2021, 21, 100727.	2.5	22
51	The locally twisted thiophene bridged phenanthroimidazole derivatives as dual-functional emitters for efficient non-doped electroluminescent devices. <i>Organic Electronics</i> , 2015, 18, 61-69.	1.4	21
52	Optimizing Intermolecular Interactions and Energy Level Alignments of Red TADF Emitters for High-Performance Organic Light-Emitting Diodes. <i>Small</i> , 2022, 18, e2201548.	5.2	20
53	Charge-transfer complexes and their applications in optoelectronic devices. <i>Materials Today Energy</i> , 2021, 20, 100644.	2.5	19
54	A high performance deep-blue emitter with an anti-parallel dipole design. <i>Dyes and Pigments</i> , 2017, 146, 219-225.	2.0	17

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55	Triplet harvesting aryl carbonyl-based luminescent materials: progress and prospective. <i>Journal of Materials Chemistry C</i> , 2021, 9, 17233-17264.	2.7	17
56	Rational molecular design of bipolar phenanthroimidazole derivatives to realize highly efficient non-doped deep blue electroluminescence with CIEy \bar{E} , 0.06 and EQE approaching 6%. <i>Dyes and Pigments</i> , 2020, 173, 107982.	2.0	16
57	Origin of thermally activated delayed fluorescence in a donor-acceptor type emitter with an optimized nearly planar geometry. <i>Journal of Materials Chemistry C</i> , 2020, 8, 13263-13269.	2.7	16
58	Effects of Hydrogen Bonds between Polymeric Hole-Transporting Material and Organic Cation Spacer on Morphology of Quasi-Two-Dimensional Perovskite Grains and Their Performance in Light-Emitting Diodes. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 9440-9447.	4.0	16
59	Constructing deep-blue bis-tridentate Ir($\langle scp \rangle$) phosphors with fluorene-based dianionic chelates. <i>Journal of Materials Chemistry C</i> , 2021, 9, 1318-1325.	2.7	16
60	A Perspective on Perovskite Solar Cells: Emergence, Progress, and Commercialization. <i>Frontiers in Chemistry</i> , 2022, 10, 802890.	1.8	14
61	Double-twist pyridine-carbonitrile derivatives yielding excellent thermally activated delayed fluorescence emitters for high-performance OLEDs. <i>Journal of Materials Chemistry C</i> , 2020, 8, 602-606.	2.7	13
62	Solid-State Fluorophore Based on \bar{E} -Extended Heteroaromatic Acceptor: Polymorphism, Mechanochromic Luminescence, and Electroluminescence. <i>Crystal Growth and Design</i> , 2020, 20, 2454-2461.	1.4	13
63	Harnessing combinational phototherapy <i>via</i> post-synthetic PpIX conjugation on nanoscale metal-organic frameworks. <i>Journal of Materials Chemistry B</i> , 2019, 7, 4763-4770.	2.9	11
64	Highly efficient thermally activated delayed fluorescence emitters enabled by double charge transfer pathways <i>via</i> ortho-linked triarylboron/carbazole hybrids. <i>Journal of Materials Chemistry C</i> , 2021, 9, 1678-1684.	2.7	11
65	Versatile azaryl-ketone-based blue AIEgens for efficient organic light-emitting diodes. <i>Dyes and Pigments</i> , 2021, 195, 109729.	2.0	11
66	Polymorphic mechanoresponsive luminescent material based on a fluorene-phenanthroimidazole hybrid by modulation of intramolecular conformation and intermolecular interaction. <i>CrystEngComm</i> , 2020, 22, 2147-2157.	1.3	10
67	Charge-Transfer Complexes: Deep-Red/Near-Infrared Electroluminescence from Single-Component Charge-Transfer Complex <i>via</i> Thermally Activated Delayed Fluorescence Channel (<i>Adv. Funct. Mater.</i>) Tj ETQq1 1 0.884314 9gBT /Ov	2.7	10
68	Efficient Yellow Thermally Activated Delayed Fluorescent Emitters Based on 3,5-Dicyanopyridine Acceptors. <i>Journal of Physical Chemistry C</i> , 2020, 124, 25489-25498.	1.5	8
69	Asymmetric aggregation-induced emission materials with double stable configurations toward promoted performance in non-doped organic light-emitting diodes. <i>Journal of Materials Chemistry C</i> , 2020, 8, 16858-16869.	2.7	6
70	A sterically shielded design on anthracene-based emitters for efficient deep-blue organic light-emitting diodes. <i>Journal of Molecular Structure</i> , 2021, 1232, 130035.	1.8	6
71	New donor-acceptor AIEgens: Influence of \bar{E} bridge on luminescence properties and electroluminescence application. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2022, 428, 113891.	2.0	6
72	High contrast temperature-responsive luminescence materials from purely organic molecule with persistent room-temperature phosphorescence. <i>Journal of Luminescence</i> , 2021, 230, 117731.	1.5	5

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73	Research Progress of Red Thermally Activated Delayed Fluorescent Materials Based on Quinoxaline. <i>Acta Chimica Sinica</i> , 2022, 80, 359.	0.5	5
74	Colorless phenanthroimidazole photoinitiators featuring tunable D- π -A configuration by frontier molecular orbital engineering. <i>Dyes and Pigments</i> , 2022, 205, 110551.	2.0	5
75	Research Progress on Aggregation-Induced Delayed Fluorescence in Materials and Devices. <i>Chinese Journal of Organic Chemistry</i> , 2021, 41, 3050.	0.6	4
76	Charge transport dependent high open circuit voltage tandem organic photovoltaic cells with low temperature deposited HATCN-based charge recombination layers. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 4045-4050.	1.3	3
77	Titelbild: Red/Near-Infrared Thermally Activated Delayed Fluorescence OLEDs with Near 100% Internal Quantum Efficiency (<i>Angew. Chem.</i> 41/2019). <i>Angewandte Chemie</i> , 2019, 131, 14529-14529.	1.6	0
78	Highly efficient inverted polymer solar cells based on ethanolamine-treated indium tin oxide as cathode. <i>Organic Electronics</i> , 2020, 85, 105896.	1.4	0
79	Near-Infrared Thermally Activated Delayed Fluorescence Nanoparticle: A Metal-Free Photosensitizer for Two-Photon-Activated Photodynamic Therapy at the Cell and Small Animal Levels (<i>Small</i> 6/2022). <i>Small</i> , 2022, 18, .	5.2	0