Wen-Cheng Chen

List of Publications by Year
in descending order

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79 papers	3,235 citations	117625 34 h-index	161849 54 g-index
80 all docs	80 docs citations	80 times ranked	2753 citing authors

#	Article	IF	Citations
1	Red/Nearâ€Infrared Thermally Activated Delayed Fluorescence OLEDs with Near 100â€‰% Internal Quantum Efficiency. Angewandte Chemie - International Edition, 2019, 58, 14660-14665.	13.8	247
2	Manipulation of Molecular Aggregation States to Realize Polymorphism, AIE, MCL, and TADF in a Single Molecule. Angewandte Chemie - International Edition, 2018, 57, 12473-12477.	13.8	171
3	Blue-emitting organic electrofluorescence materials: progress and prospective. Journal of Materials Chemistry C, 2015, 3, 10957-10963.	5.5	153
4	Achieving efficient violet-blue electroluminescence with CIE_y <0.06 and EQE >6% from naphthyl-linked phenanthroimidazoleâ€“carbazole hybrid fluorophores. Chemical Science, 2017, 8, 3599-3608.	7.4	145
5	Organic Lightâ€Emitting Diodes Based on Imidazole Semiconductors. Advanced Optical Materials, 2018, 6, 1800258.	7.3	110
6	Highly Efficient Deep-Blue Electroluminescence from a Charge-Transfer Emitter with Stable Donor Skeleton. ACS Applied Materials & Interfaces, 2017, 9, 7331-7338.	8.0	91
7	Staggered Faceâ€toâ€Face Molecular Stacking as a Strategy for Designing Deepâ€Blue Electroluminescent Materials with High Carrier Mobility. Advanced Optical Materials, 2014, 2, 626-631.	7.3	86
8	Novel Bipolar Phenanthroimidazole Derivative Design for a Nondoped Deepâ€Blue Emitter with High Singlet Exciton Yields. Advanced Optical Materials, 2015, 3, 1215-1219.	7.3	84
9	Molecular modification on bisphenanthroimidazole derivative for deep-blue organic electroluminescent material with ambipolar property and high performance. Organic Electronics, 2015, 17, 159-166.	2.6	80
10	Intrinsically Cancer-Mitochondria-Targeted Thermally Activated Delayed Fluorescence Nanoparticles for Two-Photon-Activated Fluorescence Imaging and Photodynamic Therapy. ACS Applied Materials & Interfaces, 2019, 11, 41051-41061.	8.0	73
11	Aromatically C6- and C9-Substituted Phenanthro[9,10-d]imidazole Blue Fluorophores: Structureâ€“Property Relationship and Electroluminescent Application. ACS Applied Materials & Interfaces, 2017, 9, 26268-26278.	8.0	69
12	High-Performance, Simplified Fluorescence and Phosphorescence Hybrid White Organic Light-Emitting Devices Allowing Complete Triplet Harvesting. ACS Applied Materials & Interfaces, 2016, 8, 26135-26142.	8.0	68
13	Organic nanostructures of thermally activated delayed fluorescent emitters with enhanced intersystem crossing as novel metal-free photosensitizers. Chemical Communications, 2016, 52, 11744-11747.	4.1	68
14	Rare earth-free composites of carbon dots/metalâ€“organic frameworks as white light emitting phosphors. Journal of Materials Chemistry C, 2019, 7, 2207-2211.	5.5	68
15	Nearâ€Infrared Thermally Activated Delayed Fluorescence Nanoparticle: A Metalâ€Free Photosensitizer for Twoâ€Photonâ€Activated Photodynamic Therapy at the Cell and Small Animal Levels. Small, 2022, 18, e2106215.	10.0	61
16	Deepâ€Red/Nearâ€Infrared Electroluminescence from Singleâ€Component Chargeâ€Transfer Complex via Thermally Activated Delayed Fluorescence Channel. Advanced Functional Materials, 2019, 29, 1903112.	14.9	59
17	Bipolar Blue Host Emitter with Unity Quantum Yield Allows Full Exciton Radiation in Single-Emissive-Layer Hybrid White Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2019, 11, 11691-11698.	8.0	59
18	Modulation of Solidâ€State Aggregation of Squareâ€Planar Pt(II) Based Emitters: Enabling Highly Efficient Deepâ€Red/Near Infrared Electroluminescence. Advanced Functional Materials, 2020, 30, 2002494.	14.9	59

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19	De novo design of Dâ€“Ïƒâ€“A molecules as universal hosts for monochrome and white phosphorescent organic light-emitting diodes. Chemical Science, 2018, 9, 4062-4070.	7.4	58
20	Tuning electrical properties of phenanthroimidazole derivatives to construct multifunctional deep-blue electroluminescent materials. Journal of Materials Chemistry C, 2018, 6, 3584-3592.	5.5	57
21	Efficient Orange-Red Thermally Activated Delayed Fluorescence Emitters Feasible for Both Thermal Evaporation and Solution Process. ACS Applied Materials & Interfaces, 2019, 11, 29086-29093.	8.0	57
22	Self-Assembly of Electron Donorâ€“Acceptor-Based Carbazole Derivatives: Novel Fluorescent Organic Nanoprobes for Both One- and Two-Photon Cellular Imaging. ACS Applied Materials & Interfaces, 2016, 8, 11355-11365.	8.0	56
23	High performance low-dimensional perovskite solar cells based on a one dimensional lead iodide perovskite. Journal of Materials Chemistry A, 2019, 7, 8811-8817.	10.3	54
24	The Development of Phenanthroimidazole Derivatives in Blue-Emitting Organic Electroluminescence. Science of Advanced Materials, 2015, 7, 2193-2205.	0.7	54
25	Acene-based organic semiconductors for organic light-emitting diodes and perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 9017-9029.	5.5	50
26	Manipulation of Molecular Aggregation States to Realize Polymorphism, AIE, MCL, and TADF in a Single Molecule. Angewandte Chemie, 2018, 130, 12653-12657.	2.0	49
27	Deepâ€Blue OLEDs with Rec.2020 Blue Gamut Compliance and EQE Over 22% Achieved by Conformation Engineering. Advanced Materials, 2022, 34, e2200537.	21.0	46
28	A meta-molecular tailoring strategy towards an efficient violet-blue organic electroluminescent material. RSC Advances, 2015, 5, 18067-18074.	3.6	45
29	Anthracene-based fluorescent emitters toward superior-efficiency nondoped TTA-OLEDs with deep blue emission and low efficiency roll-off. Chemical Engineering Journal, 2021, 421, 127748.	12.7	43
30	Red/Nearâ€Infrared Thermally Activated Delayed Fluorescence OLEDs with Near 100â€‰% Internal Quantum Efficiency. Angewandte Chemie, 2019, 131, 14802-14807.	2.0	40
31	Amplifying Free Radical Generation of AIE Photosensitizer with Small Singletâ€“Triplet Splitting for Hypoxia-Overcoming Photodynamic Therapy. ACS Applied Materials & Interfaces, 2022, 14, 5112-5121.	8.0	40
32	A novel Dâ€“Ïâ€“A blue fluorophore based on [1,2,4]triazolo[1,5-a]pyridine as an electron acceptor and its application in organic light-emitting diodes. Materials Chemistry Frontiers, 2019, 3, 1071-1079.	5.9	37
33	Modulating the acceptor structure of dicyanopyridine based TADF emitters: Nearly 30% external quantum efficiency and suppression on efficiency roll-off in OLED. Chemical Engineering Journal, 2020, 401, 126107.	12.7	37
34	Nanosecond-time-scale delayed fluorescence towards fast triplet-singlet spin conversion for efficient orange-red OLEDs with negligible efficiency roll-off. Chemical Engineering Journal, 2021, 415, 128949.	12.7	36
35	Isomerization enhanced quantum yield of dibenzo[a,c]phenazine-based thermally activated delayed fluorescence emitters for highly efficient orange OLEDs. Journal of Materials Chemistry C, 2020, 8, 9639-9645.	5.5	31
36	A novel spiro-annulated benzimidazole host for highly efficient blue phosphorescent organic light-emitting devices. Chemical Communications, 2018, 54, 4541-4544.	4.1	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. Journal of Materials Chemistry C, 2020, 8, 4139-4147.	5.5	29
38	Isomeric thermally activated delayed fluorescence emitters based on indolo[2,3-b]acridine electron-donor: a compromising optimization for efficient orangeâ€“red organic light-emitting diodes. Journal of Materials Chemistry C, 2019, 7, 2898-2904.	5.5	28
39	Methoxy substituents activated carbazole-based boron dimesityl TADF emitters. Journal of Materials Chemistry C, 2020, 8, 4780-4788.	5.5	28
40	Mechanochromic luminescence and color-tunable light-emitting devices of triphenylamine functionalized benzo[d,e]benzo[4,5]imidazo[2,1-a]isoquinolin-7-one. Journal of Materials Chemistry C, 2019, 7, 9808-9812.	5.5	27
41	Deep-blue organic light-emitting diodes based on push-pull Ï€-extended imidazole-fluorene hybrids. Dyes and Pigments, 2021, 184, 108754.	3.7	27
42	Achieving high singlet-oxygen generation by applying the heavy-atom effect to thermally activated delayed fluorescent materials. Chemical Communications, 2021, 57, 4902-4905.	4.1	27
43	A pyridine based meta-linking deep-blue emitter with high conjugation extent and electroluminescence efficiencies. Journal of Materials Chemistry C, 2016, 4, 6249-6255.	5.5	26
44	A Bipolar Transporter as an Efficient Green Fluorescent Emitter and Host for Red Phosphors in Multiâ€• and Singleâ€Łayer Organic Lightâ€Emitting Diodes. Chemistry - A European Journal, 2014, 20, 13762-13769.	3.3	25
45	Removing shortcomings of linear molecules to develop high efficiencies deep-blue organic electroluminescent materials. Organic Electronics, 2016, 38, 323-329.	2.6	25
46	Multifunctional anionic indiumâ€“organic frameworks for organic dye separation, white-light emission and dual-emitting Fe³⁺ sensing. Journal of Materials Chemistry C, 2019, 7, 14897-14903.	5.5	25
47	High Performance NIR OLEDs with Low Efficiency Rollâ€Off by Leveraging Os(II) Phosphors and Exciplex Coâ€Host. Advanced Functional Materials, 2021, 31, 2102787.	14.9	25
48	Aggregation-state engineering and emission switching in Dâ€“Aâ€“Dâ€² AIEgens featuring dual emission, MCL and white electroluminescence. Journal of Materials Chemistry C, 2020, 8, 8061-8068.	5.5	25
49	Polyphenylnaphthalene as a Novel Building Block for Highâ€Performance Deepâ€Blue Organic Lightâ€Emitting Devices. Advanced Optical Materials, 2018, 6, 1700855.	7.3	23
50	Deep-blue high-efficiency triplet-triplet annihilation organic light-emitting diodes using donor- and acceptor-modified anthracene fluorescent emitters. Materials Today Energy, 2021, 21, 100727.	4.7	22
51	The locally twisted thiophene bridged phenanthroimidazole derivatives as dual-functional emitters for efficient non-doped electroluminescent devices. Organic Electronics, 2015, 18, 61-69.	2.6	21
52	Optimizing Intermolecular Interactions and Energy Level Alignments of Red TADF Emitters for Highâ€Performance Organic Lightâ€Emitting Diodes. Small, 2022, 18, e2201548.	10.0	20
53	Charge-transfer complexes and their applications in optoelectronic devices. Materials Today Energy, 2021, 20, 100644.	4.7	19
54	A high performance deep-blue emitter with an anti-parallel dipole design. Dyes and Pigments, 2017, 146, 219-225.	3.7	17

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55	Triplet harvesting aryl carbonyl-based luminescent materials: progress and prospective. Journal of Materials Chemistry C, 2021, 9, 17233-17264.	5.5	17
56	Rational molecular design of bipolar phenanthroimidazole derivatives to realize highly efficient non-doped deep blue electroluminescence with CIEy Ë, 0.06 and EQE approaching 6%. Dyes and Pigments, 2020, 173, 107982.	3.7	16
57	Origin of thermally activated delayed fluorescence in a donorâ€“acceptor type emitter with an optimized nearly planar geometry. Journal of Materials Chemistry C, 2020, 8, 13263-13269.	5.5	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. ACS Applied Materials & Interfaces, 2020, 12, 9440-9447.	8.0	16
59	Constructing deep-blue bis-tridentate Ir(<scp>iii</scp>) phosphors with fluorene-based dianionic chelates. Journal of Materials Chemistry C, 2021, 9, 1318-1325.	5.5	16
60	A Perspective on Perovskite Solar Cells: Emergence, Progress, and Commercialization. Frontiers in Chemistry, 2022, 10, 802890.	3.6	14
61	Double-twist pyridineâ€“carbonitrile derivatives yielding excellent thermally activated delayed fluorescence emitters for high-performance OLEDs. Journal of Materials Chemistry C, 2020, 8, 602-606.	5.5	13
62	Solid-State Fluorophore Based on Ï€-Extended Heteroaromatic Acceptor: Polymorphism, Mechanochromic Luminescence, and Electroluminescence. Crystal Growth and Design, 2020, 20, 2454-2461.	3.0	13
63	Harnessing combinational phototherapy via post-synthetic PpIX conjugation on nanoscale metalâ€“organic frameworks. Journal of Materials Chemistry B, 2019, 7, 4763-4770.	5.8	11
64	Highly efficient thermally activated delayed fluorescence emitters enabled by double charge transfer pathways via ortho-linked triarylboron/carbazole hybrids. Journal of Materials Chemistry C, 2021, 9, 1678-1684.	5.5	11
65	Versatile azaryl-ketone-based blue AIEgens for efficient organic light-emitting diodes. Dyes and Pigments, 2021, 195, 109729.	3.7	11
66	Polymorphic mechanoresponsive luminescent material based on a fluoreneâ€“phenanthroimidazole hybrid by modulation of intramolecular conformation and intermolecular interaction. CrystEngComm, 2020, 22, 2147-2157.	2.6	10
67	Chargeâ€Transfer Complexes: Deepâ€Red/Nearâ€Infrared Electroluminescence from Singleâ€Component Chargeâ€Transfer Complex via Thermally Activated Delayed Fluorescence Channel (Adv. Funct. Mater.) Tj ETQq1 1 0.784314 rgBT /Ov	0.78	9
68	Efficient Yellow Thermally Activated Delayed Fluorescent Emitters Based on 3,5-Dicyanopyridine Acceptors. Journal of Physical Chemistry C, 2020, 124, 25489-25498.	3.1	8
69	Asymmetric aggregation-induced emission materials with double stable configurations toward promoted performance in non-doped organic light-emitting diodes. Journal of Materials Chemistry C, 2020, 8, 16858-16869.	5.5	6
70	A sterically shielded design on anthracene-based emitters for efficient deep-blue organic light-emitting diodes. Journal of Molecular Structure, 2021, 1232, 130035.	3.6	6
71	New donorâ€“Ï€â€“acceptor AIEgens: Influence of Ï€ bridge on luminescence properties and electroluminescence application. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 428, 113891.	3.9	6
72	High contrast temperature-responsive luminescence materials from purely organic molecule with persistent room-temperature phosphorescence. Journal of Luminescence, 2021, 230, 117731.	3.1	5

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73	Research Progress of Red Thermally Activated Delayed Fluorescent Materials Based on Quinoxaline. Acta Chimica Sinica, 2022, 80, 359.	1.4	5
74	Colorless phenanthroimidazole photoinitiators featuring tunable D-Ï€-A configuration by frontier molecular orbital engineering. Dyes and Pigments, 2022, 205, 110551.	3.7	5
75	Research Progress on Aggregation-Induced Delayed Fluorescence in Materials and Devices. Chinese Journal of Organic Chemistry, 2021, 41, 3050.	1.3	4
76	Charge transport dependent high open circuit voltage tandem organic photovoltaic cells with low temperature deposited HATCN-based charge recombination layers. Physical Chemistry Chemical Physics, 2016, 18, 4045-4050.	2.8	3
77	Titelbild: Red/Nearâ€Infrared Thermally Activated Delayed Fluorescence OLEDs with Near 100â€‰% Internal Quantum Efficiency (Angew. Chem. 41/2019). Angewandte Chemie, 2019, 131, 14529-14529.	2.0	0
78	Highly efficient inverted polymer solar cells based on ethanolamine-treated indium tin oxide as cathode. Organic Electronics, 2020, 85, 105896.	2.6	0
79	Nearâ€Infrared Thermally Activated Delayed Fluorescence Nanoparticle: A Metalâ€Free Photosensitizer for Twoâ€Photonâ€Activated Photodynamic Therapy at the Cell and Small Animal Levels (Small 6/2022). Small, 2022, 18, .	10.0	0