Kyung Hyung Lee

List of Publications by Year
in descending order

65 papers	1,478 citations	430754 18 h-index	345118 36 g-index
65 all docs	65 docs citations	65 times ranked	1052 citing authors

#	Article	IF	Citations
1	Quantitative Correlation of Triplet Exciton Management in Host with the Device Lifetime of Blue Phosphorescent Organic Lightâ€Emitting Diodes. Advanced Optical Materials, 2022, 10, .	3.6	13
2	Stimulated tripletâ€“triplet fusion by carrier trap-detrap mechanism in organic light-emitting diodes. Journal of Information Display, 2022, 23, 251-258.	2.1	7
3	A pyrimidine-5-carbonitrile acceptor combined with an ortho-linked donor for long lifetime through facilitated reverse intersystem crossing in thermally activated delayed fluorescence emitters. Journal of Materials Chemistry C, 2021, 9, 2408-2415.	2.7	5
4	Lowest unoccupied molecular orbital managing function of CN-substituted dibenzofuran in high triplet energy hosts for blue thermally-activated delayed fluorescence organic light-emitting diodes. Journal of Materials Chemistry C, 2021, 9, 15095-15101.	2.7	2
5	Molecular design opening two emission pathways for high efficiency and long lifetime of thermally activated delayed fluorescent organic light-emitting diodes. Journal of Materials Chemistry C, 2021, 9, 7328-7335.	2.7	11
6	Purely organic phosphorescent organic light emitting diodes using alkyl modified phenoselenazine. Journal of Materials Chemistry C, 2021, 9, 8233-8238.	2.7	19
7	CN engineered electron transport type hosts for high efficiency and extended lifetime in blue thermally activated delayed fluorescent organic light-emitting diodes. Journal of Materials Chemistry C, 2021, 9, 1966-1971.	2.7	5
8	Lifetime-Extending 3-(4-Phenylbenzo[4,5]thieno[3,2-d]pyrimidin-2-yl)benzonitrile Acceptor for Thermally Activated Delayed Fluorescence Emitters. ACS Applied Materials & Interfaces, 2021, 13, 2908-2918.	4.0	12
9	High-efficiency, long-lifetime deep-blue organic light-emitting diodes. Nature Photonics, 2021, 15, 208-215.	15.6	335
10	Over 30Â000 h Device Lifetime in Deep Blue Organic Lightâ€Emitting Diodes with y Color Coordinate of 0.086 and Current Efficiency of 37.0Âcd A^{â^'1}. Advanced Optical Materials, 2021, 9, 2100203.	3.6	44
11	20â€2: Invited Paper: Highâ€Efficiency, Longâ€Lifetime, Deepâ€Blue Organic Lightâ€Emitting Diodes. Digest of Technical Papers SID International Symposium, 2021, 52, 243-244.	0.1	0
12	Interface charge transport of multilayer devices for exact analysis of charge behavior in organic optoelectronic devices. Applied Physics Letters, 2021, 118, .	1.5	2
13	Purely Spinâ€Vibronic Coupling Assisted Triplet to Singlet Upâ€Conversion for Real Deep Blue Organic Lightâ€Emitting Diodes with Over 20% Efficiency and y Color Coordinate of 0.05. Advanced Science, 2021, 8, e2101137.	5.6	81
14	Benzoylphenyltriazine as a new acceptor of donorâ€“acceptor type thermally-activated delayed-fluorescent emitters. Journal of Industrial and Engineering Chemistry, 2021, 102, 226-232.	2.9	1
15	Cyclometalated Platinum(II) Î²â€Diketonate Complexes with Extremely High External Quantum Efficiency for White Organic Lightâ€Emitting Diodes. Advanced Optical Materials, 2021, 9, 2101233.	3.6	14
16	CNâ€Modified Imidazopyridine as a New Electron Accepting Unit of Thermally Activated Delayed Fluorescent Emitters. Chemistry - A European Journal, 2020, 26, 845-852.	1.7	10
17	Molecular design featuring carbazole-decorated 15H-diindolo[2,3-b:1â€²,2â€²,3â€²-lm]carbazole for improved efficiency and lifetime of thermally activated delayed fluorescence emitters. Journal of Materials Chemistry C, 2020, 8, 2491-2499.	2.7	7
18	A bipolar host based high triplet energy electroplex for an over 10â€‰000 h lifetime in pure blue phosphorescent organic light-emitting diodes. Materials Horizons, 2020, 7, 559-565.	6.4	106

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19	An excited state managing molecular design platform of blue thermally activated delayed fluorescence emitters by Ï€-linker engineering. Journal of Materials Chemistry C, 2020, 8, 1736-1745.	2.7	14
20	Molecular Design Strategy of Thermally Activated Delayed Fluorescent Emitters Using CNâ€Substituted Imidazopyrazine as a New Electronâ€Accepting Unit. Chemistry - an Asian Journal, 2020, 15, 122-128.	1.7	5
21	Zigâ€Zag Type Molecular Design Strategy of Nâ€Type Hosts for Skyâ€Blue Thermallyâ€Activated Delayed Fluorescence Organic Lightâ€Emitting Diodes. Chemistry - A European Journal, 2020, 26, 2429-2435.	1.7	7
22	Pâ€173: Improved Efficiency in Blue Fluorescent Organic Lightâ€emitting Devices Using Anthraceneâ€containing Dibenzofuranâ€Type Host Materials. Digest of Technical Papers SID International Symposium, 2020, 51, 2030-2032.	0.1	0
23	Pâ€180: Efficient Blue Phosphorescent Organic Lightâ€Emitting Diode with Extremely High External Quantum Efficiency. Digest of Technical Papers SID International Symposium, 2020, 51, 2054-2057.	0.1	0
24	Transformation from Nonthermally Activated Delayed Fluorescence Molecules to Thermally Activated Delayed Fluorescence Molecules. Advanced Optical Materials, 2020, 8, 2001025.	3.6	17
25	Cyclometalated Platinum(II) Î²-Diketonate Complexes as Single Dopants for High-Efficiency White OLEDs: The Relationship between Intermolecular Interactions in the Solid State and Electroluminescent Efficiency. Crystal Growth and Design, 2020, 20, 6129-6138.	1.4	30
26	Donor and acceptor interlock by a planar indolo[3,2,1-jk]carbazole for a suppressed non-radiative mechanism in thermally activated delayed fluorescent emitters. Journal of Materials Chemistry C, 2020, 8, 14490-14498.	2.7	7
27	Isomeric fused benzocarbazole as a chromophore for blue fluorescent organic light-emitting diodes. Journal of Materials Chemistry C, 2020, 8, 8320-8327.	2.7	13
28	Benzonitrile and dicyanocarbazole derived electron transport type host materials for improved device lifetime in blue thermally activated delayed fluorescent organic light-emitting diodes. Journal of Materials Chemistry C, 2020, 8, 5832-5838.	2.7	10
29	High External Quantum Efficiency in Fluorescent OLED by Cascade Singlet Harvesting Mechanism. Advanced Optical Materials, 2020, 8, 2000328.	3.6	14
30	Heavy Atom Effect of Selenium for Metal-Free Phosphorescent Light-Emitting Diodes. Chemistry of Materials, 2020, 32, 2583-2592.	3.2	86
31	Design of thermally activated delayed fluorescent sensitizers for high efficiency over 20% and long lifetime in yellow fluorescent organic light-emitting diodes. Journal of Materials Chemistry C, 2020, 8, 5265-5272.	2.7	19
32	A novel fluoreneâ€“indolocarbazole hybrid chromophore to assemble high efficiency deep-blue fluorescent emitters with extended device lifetime. Journal of Materials Chemistry C, 2020, 8, 3051-3057.	2.7	26
33	Molecular Engineering of Isomeric Benzofurocarbazole Donors for Photophysical Management of Thermally Activated Delayed Fluorescence Emitters. Chemistry - A European Journal, 2020, 26, 4816-4821.	1.7	4
34	Novel Positive Polaron Stabilizing n-Type Host for High Efficiency and Long Lifetime in Blue Phosphorescent Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2020, 12, 19737-19745.	4.0	17
35	A study on the effect of a pyridine secondary acceptor on the emission properties of thermally activated delayed fluorescence emitters. Journal of Materials Chemistry C, 2020, 8, 7485-7491.	2.7	9
36	Donor and Acceptor Fused 16,16â€Dimethylâ€11,16â€dihydrodibenzo[2,3:5,6]pyrrolizino[1,7â€ab]acridine as a Blueâ€Emitting Chromophore for High External Quantum Efficiency and Long Lifetime. Advanced Optical Materials, 2020, 8, 2000480.	3.6	7

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37	Decoration of Dibenzofuran Using Cyanocarbazole via 6â€Position as a Molecular Design Approach for Highâ€Tripletâ€Energy Bipolar Host Materials. Chemistry - an Asian Journal, 2019, 14, 313-321.	1.7	4
38	The effect of a heavy atom on the radiative pathways of an emitter with dual conformation, thermally-activated delayed fluorescence and room temperature phosphorescence. Journal of Materials Chemistry C, 2019, 7, 10481-10490.	2.7	49
39	Dibenzo[b,d]furan and dibenzo[b,d]thiophene molecular dimers as hole blocking materials for high-efficiency and long-lived blue phosphorescent organic light-emitting diodes. Journal of Materials Chemistry C, 2019, 7, 9599-9608.	2.7	6
40	Two-channel emission controlled by a conjugation valve for the color switching of thermally activated delayed fluorescence emission. Journal of Materials Chemistry C, 2019, 7, 9908-9916.	2.7	18
41	Design Strategy of Decorating Phenylcarbazole with a Donor and Acceptor for Blueâ€Shifted Emission in Thermally Activated Delayed Fluorescent Emitters. Chemistry - A European Journal, 2019, 25, 11765-11771.	1.7	6
42	Phosphor sensitized thermally activated delayed fluorescence organic light-emitting diodes with ideal deep blue device performances. Journal of Materials Chemistry C, 2019, 7, 8562-8568.	2.7	65
43	Blue Phosphorescent Ir(III) Complexes Achieved with Over 30% External Quantum Efficiency. Advanced Optical Materials, 2019, 7, 1901387.	3.6	36
44	Simultaneous Achievement of High Efficiency and Long Lifetime in Deep Blue Phosphorescent Organic Lightâ€Emitting Diodes. Advanced Optical Materials, 2019, 7, 1901374.	3.6	41
45	Novel hole blocking materials based on 2,6-disubstituted dibenzo[b,d]furan and dibenzo[b,d]thiophene segments for high-performance blue phosphorescent organic light-emitting diodes. Journal of Materials Chemistry C, 2019, 7, 826-834.	2.7	13
46	12â€1: Analysis of Key Factors Affecting the Lifetime of Blue Phosphorescent OLED Using CN Modified Blue Host Materials. Digest of Technical Papers SID International Symposium, 2019, 50, 141-144.	0.1	4
47	33â€2: Invited Paper: Lifetime Improvement of Thermally Activated Delayed Fluorescent Organic Lightâ€Emitting Diodes. Digest of Technical Papers SID International Symposium, 2019, 50, 462-465.	0.1	2
48	15H-Diindolo[2,3-b:1â€²,2â€²,3â€²-lm]carbazole: a novel rigid donor for highly efficient thermally activated delayed fluorescence emitters. Journal of Materials Chemistry C, 2019, 7, 8037-8044.	2.7	17
49	Pâ€173: Engineering of Linker Unit for Blue Thermally Activated Delayed Fluorescent Organic Lightâ€Emitting Diodes. Digest of Technical Papers SID International Symposium, 2019, 50, 1886-1888.	0.1	0
50	Pâ€184: Boron Derivatives as Deep Blue Fluorescent Materials for High Efficiency and Long Lifetime. Digest of Technical Papers SID International Symposium, 2019, 50, 1924-1927.	0.1	1
51	Pâ€185: Highly Efficient and Long Lifetime Bipolar Host Material for Red Phosphorescent Organic Lightâ€Emitting Diodes Using Benzocarbazole and Diphenyltriazine Derivatives. Digest of Technical Papers SID International Symposium, 2019, 50, 1928-1931.	0.1	1
52	Pâ€192: Development of New Linker Moiety for TADF Materials: Elucidation of Material Properties by Substitution Position Effect. Digest of Technical Papers SID International Symposium, 2019, 50, 1950-1953.	0.1	0
53	The effect of frontier orbital distribution of the core structure on the photophysics and device performances of thermally activated delayed fluorescence emitters. Journal of Materials Chemistry C, 2019, 7, 7760-7767.	2.7	11
54	Isomeric Quinoxalinedicarbonitrile as Color-Managing Acceptors of Thermally Activated Delayed Fluorescent Emitters. ACS Applied Materials & Interfaces, 2019, 11, 17583-17591.	4.0	49

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55	Management of thermally activated delayed fluorescence using a secondary electron accepting unit in thermally activated delayed fluorescent emitters. Journal of Materials Chemistry C, 2019, 7, 6465-6474.	2.7	18
56	Design of Thermally Activated Delayed Fluorescent Assistant Dopants to Suppress the Nonradiative Component in Red Fluorescent Organic Lightâ€Emitting Diodes. Chemistry - A European Journal, 2019, 25, 9060-9070.	1.7	23
57	Management of Triplet Energy and Charge-Transport Properties of Hosts by CN Position Engineering. Journal of Physical Chemistry C, 2019, 123, 8531-8540.	1.5	13
58	Triggering Thermally Activated Delayed Fluorescence by Managing the Heteroatom in Donor Scaffolds: Intriguing Photophysical and Electroluminescence Properties. Chemistry - an Asian Journal, 2019, 14, 2251-2258.	1.7	17
59	Indoloindole as a new building block of a hole transport type host for stable operation in phosphorescent organic light-emitting diodes. Journal of Materials Chemistry C, 2019, 7, 5988-5994.	2.7	12
60	Electrostatic potential dispersing pyrimidine-5-carbonitrile acceptor for high efficiency and long lifetime thermally activated delayed fluorescence organic light-emitting diodes. Journal of Materials Chemistry C, 2019, 7, 12695-12703.	2.7	18
61	6H-Benzo[4,5]thieno[2,3-b]indole as a novel donor for efficient thermally activated delayed fluorescence emitters with EQEs over 20%. Journal of Materials Chemistry C, 2019, 7, 13912-13919.	2.7	11
62	Peripheral Decoration of Dibenzofuran with Donors and Acceptors as a New Design Platform for Thermally Activated Delayed Fluorescence Emitters. Chemistry of Materials, 2019, 31, 10023-10031.	3.2	14
63	Blue Phosphorescent Platinum Complexes Based on Tetradentate Bipyridine Ligands and Their Application to Organic Light-Emitting Diodes (OLEDs). Organometallics, 2018, 37, 4639-4647.	1.1	43
64	Superb lifetime of blue organic light-emitting diodes through engineering interface carrier blocking layers and adjusting electron leakage and an unusual efficiency variation at low electric field. Journal of Materials Chemistry C, 2018, 6, 8472-8478.	2.7	22
65	3â€Cyano Imidazopyridine Acceptorâ€based Bipolar and nâ€type Host Materials for Phosphorescent Organic Lightâ€Emitting Diodes. Asian Journal of Organic Chemistry, 2018, 7, 2218-2222.	1.3	5