Katsuyuki Shizu

List of Publications by Year
in descending order

56 papers	13,165 citations	172207 29 h-index	155451 55 g-index
61 all docs	61 docs citations	61 times ranked	6967 citing authors

#	Article	IF	Citations
1	Highly efficient organic light-emitting diodes from delayed fluorescence. Nature, 2012, 492, 234-238.	13.7	6,030
2	Design of Efficient Thermally Activated Delayed Fluorescence Materials for Pure Blue Organic Light Emitting Diodes. Journal of the American Chemical Society, 2012, 134, 14706-14709.	6.6	1,370
3	Highly efficient blue electroluminescence based on thermally activated delayed fluorescence. Nature Materials, 2015, 14, 330-336.	13.3	1,129
4	Purely organic electroluminescent material realizing 100% conversion from electricity to light. Nature Communications, 2015, 6, 8476.	5.8	799
5	Efficient green thermally activated delayed fluorescence (TADF) from a phenoxazineâ€“triphenyltriazine (PXZâ€“TRZ) derivative. Chemical Communications, 2012, 48, 11392.	2.2	573
6	Oxadiazole- and triazole-based highly-efficient thermally activated delayed fluorescence emitters for organic light-emitting diodes. Journal of Materials Chemistry C, 2013, 1, 4599.	2.7	304
7	Twisted Intramolecular Charge Transfer State for Long-Wavelength Thermally Activated Delayed Fluorescence. Chemistry of Materials, 2013, 25, 3766-3771.	3.2	297
8	Triarylboronâ€Based Fluorescent Organic Lightâ€Emitting Diodes with External Quantum Efficiencies Exceeding 20â€‰%. Angewandte Chemie - International Edition, 2015, 54, 15231-15235.	7.2	285
9	Dual Intramolecular Charge-Transfer Fluorescence Derived from a Phenothiazine-Triphenyltriazine Derivative. Journal of Physical Chemistry C, 2014, 118, 15985-15994.	1.5	261
10	Organic Luminescent Molecule with Energetically Equivalent Singlet and Triplet Excited States for Organic Light-Emitting Diodes. Physical Review Letters, 2013, 110, 247401.	2.9	198
11	Solvent Effect on Thermally Activated Delayed Fluorescence by 1,2,3,5-Tetrakis(carbazol-9-yl)-4,6-dicyanobenzene. Journal of Physical Chemistry A, 2013, 117, 5607-5612.	1.1	173
12	Controlled emission colors and singletâ€“triplet energy gaps of dihydrophenazine-based thermally activated delayed fluorescence emitters. Journal of Materials Chemistry C, 2015, 3, 2175-2181.	2.7	147
13	Strategy for Designing Electron Donors for Thermally Activated Delayed Fluorescence Emitters. Journal of Physical Chemistry C, 2015, 119, 1291-1297.	1.5	137
14	Combined Interâ€•and Intramolecular Chargeâ€Transfer Processes for Highly Efficient Fluorescent Organic Lightâ€Emitting Diodes with Reduced Triplet Exciton Quenching. Advanced Materials, 2017, 29, 1606448.	11.1	131
15	Highly Efficient Blue Electroluminescence Using Delayed-Fluorescence Emitters with Large Overlap Density between Luminescent and Ground States. Journal of Physical Chemistry C, 2015, 119, 26283-26289.	1.5	116
16	Blue organic light-emitting diodes realizing external quantum efficiency over 25% using thermally activated delayed fluorescence emitters. Scientific Reports, 2017, 7, 284.	1.6	88
17	Enhanced Electroluminescence from a Thermally Activated Delayed-Fluorescence Emitter by Suppressing Nonradiative Decay. Physical Review Applied, 2015, 3, .	1.5	81
18	Highly efficient electroluminescence from a solution-processable thermally activated delayed fluorescence emitter. Applied Physics Letters, 2015, 107, .	1.5	75

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19	High efficiency thermally activated delayed fluorescence based on 1,3,5-tris(4-(diphenylamino)phenyl)-2,4,6-tricyanobenzene. Chemical Communications, 2015, 51, 5028-5031.	2.2	73
20	Donorâ€“acceptor-structured 1,4-diazatriphenylene derivatives exhibiting thermally activated delayed fluorescence: design and synthesis, photophysical properties and OLED characteristics. Science and Technology of Advanced Materials, 2014, 15, 034202.	2.8	67
21	Thermally Activated Delayed Fluorescence from a Spiro-diazafluorene Derivative. Chemistry Letters, 2014, 43, 1017-1019.	0.7	62
22	Highly Efficient Thermally Activated Delayed Fluorescence Emitters with a Small Singletâ€“Triplet Energy Gap and Large Oscillator Strength. Chemistry Letters, 2015, 44, 360-362.	0.7	57
23	Preparation and Characterization of Nâ€Anisylâ€Substituted Hexaaza[1₆]paracyclophane. Angewandte Chemie - International Edition, 2010, 49, 8205-8208.	7.2	56
24	Effect of Atom Substitution in Chalcogenodiazole-Containing Thermally Activated Delayed Fluorescence Emitters on Radiationless Transition. Journal of Physical Chemistry C, 2015, 119, 2948-2955.	1.5	51
25	Highly efficient electroluminescence from purely organic donorâ€“acceptor systems. Pure and Applied Chemistry, 2015, 87, 627-638.	0.9	45
26	Electronâ€“vibration interactions in carrier-transport material: Vibronic coupling density analysis in TPD. Chemical Physics Letters, 2008, 458, 152-156.	1.2	38
27	Comprehensive understanding of multiple resonance thermally activated delayed fluorescence through quantum chemistry calculations. Communications Chemistry, 2022, 5, .	2.0	33
28	Highly efficient solution-processed host-free organic light-emitting diodes showing an external quantum efficiency of nearly 18% with a thermally activated delayed fluorescence emitter. Applied Physics Express, 2016, 9, 032102.	1.1	32
29	A boron-containing molecule as an efficient electron-transporting material with low-power consumption. Applied Physics Letters, 2010, 97, 142111.	1.5	30
30	Detailed analysis of charge transport in amorphous organic thin layer by multiscale simulation without any adjustable parameters. Scientific Reports, 2016, 6, 39128.	1.6	29
31	Theoretical design of a hole-transporting molecule: hexaaza[16]parabiphenylophane. Journal of Materials Chemistry, 2011, 21, 6375.	6.7	28
32	Vibronic Coupling Constant and Vibronic Coupling Density. Springer Series in Chemical Physics, 2009, , 99-129.	0.2	24
33	Multiscale simulation of charge transport in a host material, N,Nâ€²-dicarbazole-3,5-benzene (mCP), for organic light-emitting diodes. Journal of Materials Chemistry C, 2015, 3, 5549-5555.	2.7	23
34	Vibronic coupling density and related concepts. Journal of Physics: Conference Series, 2013, 428, 012010.	0.3	22
35	[Paper] Meta-linking Strategy for Thermally Activated Delayed Fluorescence Emitters with a Small Singlet-Triplet Energy Gap. ITE Transactions on Media Technology and Applications, 2015, 3, 108-113.	0.3	21
36	Electronâ€“vibration interactions in triphenylamine cation: Why are triphenylamine-based molecules good hole-transport materials?. Chemical Physics Letters, 2010, 486, 130-136.	1.2	19

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37	Effect of Vibronic Coupling on Correlated Triplet Pair Formation in the Singlet Fission Process of Linked Tetracene Dimers. Journal of Physical Chemistry A, 2020, 124, 3641-3651.	1.1	18
38	Theoretical Determination of Rate Constants from Excited States: Application to Benzophenone. Journal of Physical Chemistry A, 2021, 125, 9000-9010.	1.1	15
39	Vibronic coupling density analysis of hole-transporting materials: Electron-density difference in DFT and HF methods. Organic Electronics, 2010, 11, 1277-1287.	1.4	13
40	High-throughput virtual screening. Nature Materials, 2016, 15, 1056-1057.	13.3	13
41	Vibronic coupling density analysis for Î±-oligothiophene cations: A new insight for polaronic defects. Chemical Physics, 2010, 369, 108-121.	0.9	12
42	Inelastic electron tunneling spectra and vibronic coupling density analysis of 2,5-dimercapto-1,3,4-thiadiazole and tetrathiafulvalene dithiol. Nanoscale, 2010, 2, 2186.	2.8	12
43	Reduced vibronic coupling density and its application to bis(ethylenedithio)tetrathiafulvalene (BEDT-TTF). Chemical Physics Letters, 2010, 491, 65-71.	1.2	11
44	Molecular Vibration Accelerates Charge Transfer Emission in a Highly Twisted Blue Thermally Activated Delayed Fluorescence Material. Journal of Physical Chemistry A, 2021, 125, 4534-4539.	1.1	11
45	Thermally Activated Delayed Fluorescence Emitter with a Symmetric Acceptor-Donor-Acceptor Structure. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2017, 30, 475-481.	0.1	9
46	Conformation Control of Iminodibenzyl-Based Thermally Activated Delayed Fluorescence Material by Tilted Face-to-Face Alignment With Optimal Distance (tFFO) Design. Frontiers in Chemistry, 2020, 8, 530.	1.8	7
47	Organic Light-Emitting Diodes (OLEDs): Materials, Photophysics, and Device Physics. , 2015, , 43-73.		5
48	Organic Electroluminescent Materials Realizing Efficient Conversion from Electricity to Light. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2016, 29, 305-310.	0.1	5
49	Imidazole Acceptor for Both Vacuum-Processable and Solution-Processable Efficient Blue Thermally Activated Delayed Fluorescence. ACS Omega, 0, , .	1.6	5
50	Vibronic interactions in hole-transporting molecules: An interplay with electronâ€“hole interactions. Chemical Physics Letters, 2011, 507, 151-156.	1.2	3
51	Correlated Triplet Pair Formation Activated by Geometry Relaxation in Directly Linked Tetracene Dimer (5,5â€²-Bitetracene). ACS Omega, 2021, 6, 2638-2643.	1.6	3
52	Visual Understanding of Vibronic Coupling and Quantitative Rate Expression for Singlet Fission in Molecular Aggregates. Bulletin of the Chemical Society of Japan, 2020, 93, 1305-1313.	2.0	2
53	Inverse Relationship of Reorganization Energy to The Number of Ï€ Electrons from Perspective of Vibronic Coupling Density. Journal of Computer Chemistry Japan, 2013, 12, 215-221.	0.0	2
54	Vibronic coupling density analysis for free-base porphin cation. Chemical Physics Letters, 2011, 505, 42-46.	1.2	1

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55	Carbazole and Benzophenone Based Twisted Donorâ€“Acceptor Systems as Solution Processable Green Thermally Activated Delayed Fluorescence Organic Light Emitters. Chemistry Letters, 2018, 47, 1236-1239.	0.7	1
56	Organic light-emitting diodes: multiscale charge transport simulation and fabrication of new thermally activated delayed fluorescence (TADF) materials. , 2015, , .		0