Katsuyuki Shizu

List of Publications by Citations

55 papers	10,300 citations	28 h-index	61 g-index
61 ext. papers	11,719 ext. citations	6.5 avg, IF	6.27 L-index

#	Paper	IF	Citations
55	Highly efficient organic light-emitting diodes from delayed fluorescence. *Nature*, **2012**, 492, 234-8	50.4	4461
54	Design of efficient thermally activated delayed fluorescence materials for pure blue organic light emitting diodes. *Journal of the American Chemical Society*, **2012**, 134, 14706-9	16.4	1147
53	Highly efficient blue electroluminescence based on thermally activated delayed fluorescence. *Nature Materials*, **2015**, 14, 330-6	27	886
52	Purely organic electroluminescent material realizing 100% conversion from electricity to light. *Nature Communications*, **2015**, 6, 8476	17.4	606
51	Efficient green thermally activated delayed fluorescence (TADF) from a phenoxazine-triphenyltriazine (PXZ-TRZ) derivative. *Chemical Communications*, **2012**, 48, 11392-4	5.8	478
50	Oxadiazole- and triazole-based highly-efficient thermally activated delayed fluorescence emitters for organic light-emitting diodes. *Journal of Materials Chemistry C*, **2013**, 1, 4599	7.1	269
49	Twisted Intramolecular Charge Transfer State for Long-Wavelength Thermally Activated Delayed Fluorescence. *Chemistry of Materials*, **2013**, 25, 3766-3771	9.6	253
48	Triarylboron-Based Fluorescent Organic Light-Emitting Diodes with External Quantum Efficiencies Exceeding 20 . *Angewandte Chemie - International Edition*, **2015**, 54, 15231-5	16.4	242
47	Dual Intramolecular Charge-Transfer Fluorescence Derived from a Phenothiazine-Triphenyltriazine Derivative. *Journal of Physical Chemistry C*, **2014**, 118, 15985-15994	3.8	204
46	Organic luminescent molecule with energetically equivalent singlet and triplet excited states for organic light-emitting diodes. *Physical Review Letters*, **2013**, 110, 247401	7.4	180
45	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, 5607-12	2.8	128
44	Strategy for Designing Electron Donors for Thermally Activated Delayed Fluorescence Emitters. *Journal of Physical Chemistry C*, **2015**, 119, 1291-1297	3.8	127
43	Controlled emission colors and singlet–triplet energy gaps of dihydrophenazine-based thermally activated delayed fluorescence emitters. *Journal of Materials Chemistry C*, **2015**, 3, 2175-2181	7.1	111
42	Combined Inter- and Intramolecular Charge-Transfer Processes for Highly Efficient Fluorescent Organic Light-Emitting Diodes with Reduced Triplet Exciton Quenching. *Advanced Materials*, **2017**, 29, 1606448	24	110
41	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	3.8	100
40	Triarylboron-Based Fluorescent Organic Light-Emitting Diodes with External Quantum Efficiencies Exceeding 20 %. *Angewandte Chemie*, **2015**, 127, 15446-15450	3.6	85
39	Enhanced Electroluminescence from a Thermally Activated Delayed-Fluorescence Emitter by Suppressing Nonradiative Decay. *Physical Review Applied*, **2015**, 3,	4.3	74

38	Blue organic light-emitting diodes realizing external quantum efficiency over 25% using thermally activated delayed fluorescence emitters. *Scientific Reports*, **2017**, 7, 284	4.9	71
37	High efficiency thermally activated delayed fluorescence based on 1,3,5-tris(4-(diphenylamino)phenyl)-2,4,6-tricyanobenzene. *Chemical Communications*, **2015**, 51, 5028-31	5.8	62
36	Highly efficient electroluminescence from a solution-processable thermally activated delayed fluorescence emitter. *Applied Physics Letters*, **2015**, 107, 183303	3.4	61
35	Donor-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	7.1	56
34	Thermally Activated Delayed Fluorescence from a Spiro-diazafluorene Derivative. *Chemistry Letters*, **2014**, 43, 1017-1019	1.7	53
33	Preparation and characterization of N-anisyl-substituted hexaaza[1(6)]paracyclophane. *Angewandte Chemie - International Edition*, **2010**, 49, 8205-8	16.4	49
32	Highly Efficient Thermally Activated Delayed Fluorescence Emitters with a Small Singlet–Triplet Energy Gap and Large Oscillator Strength. *Chemistry Letters*, **2015**, 44, 360-362	1.7	48
31	Effect of Atom Substitution in Chalcogenodiazole-Containing Thermally Activated Delayed Fluorescence Emitters on Radiationless Transition. *Journal of Physical Chemistry C*, **2015**, 119, 2948-2955	3.8	46
30	Electron–vibration interactions in carrier-transport material: Vibronic coupling density analysis in TPD. *Chemical Physics Letters*, **2008**, 458, 152-156	2.5	36
29	Highly efficient electroluminescence from purely organic donor–acceptor systems. *Pure and Applied Chemistry*, **2015**, 87, 627-638	2.1	34
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	2.4	29
27	Theoretical design of a hole-transporting molecule: hexaaza[16]parabiphenylophane. *Journal of Materials Chemistry*, **2011**, 21, 6375		27
26	A boron-containing molecule as an efficient electron-transporting material with low-power consumption. *Applied Physics Letters*, **2010**, 97, 142111	3.4	27
25	Detailed analysis of charge transport in amorphous organic thin layer by multiscale simulation without any adjustable parameters. *Scientific Reports*, **2016**, 6, 39128	4.9	23
24	[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	0.7	19
23	Preparation and Characterization of N-Anisyl-Substituted Hexaaza[16]paracyclophane. *Angewandte Chemie*, **2010**, 122, 8381-8384	3.6	19
22	Multiscale simulation of charge transport in a host material, N,N?-dicarbazole-3,5-benzene (mCP), for organic light-emitting diodes. *Journal of Materials Chemistry C*, **2015**, 3, 5549-5555	7.1	18
21	Electron–vibration interactions in triphenylamine cation: Why are triphenylamine-based molecules good hole-transport materials?. *Chemical Physics Letters*, **2010**, 486, 130-136	2.5	18

20	Vibronic Coupling Constant and Vibronic Coupling Density. *Springer Series in Chemical Physics*, **2009**, 99-129	0.3	17
19	Vibronic coupling density and related concepts. *Journal of Physics: Conference Series*, **2013**, 428, 012010	0.3	16
18	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	2.8	13
17	Vibronic coupling density analysis for □-oligothiophene cations: A new insight for polaronic defects. *Chemical Physics*, **2010**, 369, 108-121	2.3	12
16	Organic light-emitting diodes: High-throughput virtual screening. *Nature Materials*, **2016**, 15, 1056-7	27	12
15	Inelastic electron tunneling spectra and vibronic coupling density analysis of 2,5-dimercapto-1,3,4-thiadiazole and tetrathiafulvalene dithiol. *Nanoscale*, **2010**, 2, 2186-94	7.7	11
14	Vibronic coupling density analysis of hole-transporting materials: Electron-density difference in DFT and HF methods. *Organic Electronics*, **2010**, 11, 1277-1287	3.5	11
13	Reduced vibronic coupling density and its application to bis(ethylenedithio)tetrathiafulvalene (BEDT-TTF). *Chemical Physics Letters*, **2010**, 491, 65-71	2.5	10
12	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	0.7	5
11	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	5	5
10	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	2.8	5
9	Organic Electroluminescent Materials Realizing Efficient Conversion from Electricity to Light. *Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]*, **2016**, 29, 305-310	0.7	5
8	Organic Light-Emitting Diodes (OLEDs): Materials, Photophysics, and Device Physics **2015**, 43-73		4
7	Vibronic interactions in hole-transporting molecules: An interplay with electron□hole interactions. *Chemical Physics Letters*, **2011**, 507, 151-156	2.5	3
6	Inverse Relationship of Reorganization Energy to The Number of □Electrons from Perspective of Vibronic Coupling Density. *Journal of Computer Chemistry Japan*, **2013**, 12, 215-221	0.2	2
5	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	5.1	2
4	Correlated Triplet Pair Formation Activated by Geometry Relaxation in Directly Linked Tetracene Dimer (5,5'-Bitetracene). *ACS Omega*, **2021**, 6, 2638-2643	3.9	2
3	Theoretical Determination of Rate Constants from Excited States: Application to Benzophenone. *Journal of Physical Chemistry A*, **2021**, 125, 9000-9010	2.8	2

2	Vibronic coupling density analysis for free-base porphin cation. *Chemical Physics Letters*, **2011**, 505, 42-46	2.5	1
1	Carbazole and Benzophenone Based Twisted Donor–Acceptor Systems as Solution Processable Green Thermally Activated Delayed Fluorescence Organic Light Emitters. *Chemistry Letters*, **2018**, 47, 1236-1239	1.7	