

Toshiki Mutai

List of Publications by Year in descending order

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papers

3,351
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257450

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138484

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docs citations

64
times ranked

3452
citing authors

#	ARTICLE	IF	CITATIONS
1	Material Design for Piezochromic Luminescence: A Hydrogen-Bond-Directed Assemblies of a Pyrene Derivative. <i>Journal of the American Chemical Society</i> , 2007, 129, 1520-1521.	13.7	582
2	Reproducible on/off switching of solid-state luminescence by controlling molecular packing through heat-mode interconversion. <i>Nature Materials</i> , 2005, 4, 685-687.	27.5	489
3	Switching of Polymorph-Dependent ESIPT Luminescence of an Imidazo[1,2-a]pyridine Derivative. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 9522-9524.	13.8	375
4	A Stimuli-Responsive, Photoluminescent, Anthracene-Based Liquid Crystal: Emission Color Determined by Thermal and Mechanical Processes. <i>Advanced Functional Materials</i> , 2009, 19, 1869-1875.	14.9	241
5	Tuning of Excited-State Intramolecular Proton Transfer (ESIPT) Fluorescence of Imidazo[1,2-a]pyridine in Rigid Matrices by Substitution Effect. <i>Journal of Organic Chemistry</i> , 2013, 78, 2482-2489.	3.2	178
6	Fabrication of Colorless Organic Materials Exhibiting White Luminescence Using Normal and Excited-State Intramolecular Proton Transfer Processes. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 654-657.	8.0	125
7	Piezochromic luminescence of amide and ester derivatives of tetraphenylpyrene: role of amide hydrogen bonds in sensitive piezochromic response. <i>Journal of Materials Chemistry</i> , 2011, 21, 8347.	6.7	105
8	Phenyl-substituted 2,2',6',2''-terpyridine as a new series of fluorescent compounds: their photophysical properties and fluorescence tuning. <i>Perkin Transactions II RSC</i> , 2001, , 1045-1050.	1.1	102
9	Excited-State Intramolecular Proton Transfer (ESIPT) Emission of Hydroxyphenylimidazopyridine: Computational Study on Enhanced and Polymorph-Dependent Luminescence in the Solid State. <i>Journal of Physical Chemistry A</i> , 2012, 116, 12041-12048.	2.5	91
10	Mechanochromic luminescent liquid crystals based on a bianthryl moiety. <i>Journal of Materials Chemistry C</i> , 2013, 1, 2648.	5.5	82
11	Substituent Effects on Fluorescent Properties of Imidazo[1,2-a]pyridine-Based Compounds. <i>Bulletin of the Chemical Society of Japan</i> , 1999, 72, 1327-1334.	3.2	78
12	Colorless, Transparent, Dye-Doped Polymer Films Exhibiting Tunable Luminescence Color: Controlling the Dual-Color Luminescence of 2-(2-Hydroxyphenyl)imidazo[1,2-a]pyridine Derivatives with the Surrounding Matrix. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 16065-16070.	8.0	66
13	A superelastochromic crystal. <i>Nature Communications</i> , 2020, 11, 1824.	12.8	61
14	Three-color polymorph-dependent luminescence: crystallographic analysis and theoretical study on excited-state intramolecular proton transfer (ESIPT) luminescence of cyano-substituted imidazo[1,2-a]pyridine. <i>CrystEngComm</i> , 2014, 16, 3890-3895.	2.6	58
15	Photo-induced energy transfer and its switching in dyad and triad chromophore systems composed of coumarin, Ru(II) and Os(II) terpyridine-type complexes. Electronic supplementary information (ESI) available: ¹ H NMR and ES mass spectra of the new dyad and triad coumarin-containing complexes, (C151)2-Os, (C151)2-Ru-ph-Os and (C151)2-Ru-azo-Os and the emission spectra of (C151)2-tpy and (C151)2-Os. See http://www.rsc.org/suppldata/d4/jb2/jb212274j/ . <i>Dalton Transactions</i> , 2003, , 1537-1544.	3.3	38
16	Solid-state luminescence of tetraphenylpyrene derivatives: mechano/vapochromic luminescence of 1,3,6,8-tetra(4-carboxyphenyl)pyrene. <i>Journal of Materials Chemistry</i> , 2012, 22, 20065.	6.7	36
17	Excited-State Intramolecular Proton Transfer and Global Aromaticity. <i>Journal of Physical Chemistry A</i> , 2017, 121, 151-161.	2.5	35
18	6-Amino-2,2'-bipyridine as a new fluorescent organic compound. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1996, , 613-617.	0.9	34

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19	Development of Imidazo[1,2- <i>a</i>]pyridine Derivatives with an Intramolecular Hydrogen-Bonded Seven-Membered Ring Exhibiting Bright ESIPT Luminescence in the Solid State. <i>Organic Letters</i> , 2019, 21, 2143-2146.	4.6	34
20	Sterically induced polymorphism: ONâ€œOFF control of excited-state intramolecular proton transfer (ESIPT) luminescence of 1-methyl-2-(2â€œ-hydroxyphenyl)benzimidazole. <i>CrystEngComm</i> , 2013, 15, 10179.	2.6	33
21	The development of aryl-substituted 2-phenylimidazo[1,2- <i>a</i>]pyridines (PIP) with various colors of excited-state intramolecular proton transfer (ESIPT) luminescence in the solid state. <i>Journal of Materials Chemistry C</i> , 2016, 4, 3599-3606.	5.5	33
22	6-Amino-2,2â€œ:6â€œ,2â€œ ³ -terpyridines as highly fluorescent compoundsâ€œ effect of the number of pyridine rings on fluorescence properties. <i>Perkin Transactions II RSC</i> , 2002, , 862-865.	1.1	27
23	Locking of Helicity and Shape Complementarity in Diarylethene Dimers on Graphite. <i>Journal of the American Chemical Society</i> , 2008, 130, 386-387.	13.7	27
24	Tuning of fluorescence properties of aminoterpyridine fluorophores by N-substitution. <i>Organic and Biomolecular Chemistry</i> , 2007, 5, 2762.	2.8	21
25	A novel fluorescent 2,2â€œ-bipyridine derivative prepared by coupling to a fluorescent aminophenazineâ€œâ€œ fluorescence properties and response toward various cations. <i>Perkin Transactions II RSC</i> , 2000, , 243-247.	1.1	19
26	Influence of intermolecular interactions on solid state luminescence of imidazopyridines: theoretical interpretations using FMO-TDDFT and ONIOM approaches. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 14388.	2.8	19
27	Re-evaluation of the <i>tert</i> -Butyl Method in Crystal Engineering of Salicylideneanilines by Simultaneous Observation of Photochromism and Thermochromism in Single Crystals. <i>Crystal Growth and Design</i> , 2019, 19, 1384-1390.	3.0	19
28	Synthesis and properties of an efficient and switchable photosensitizing unit, [Ru(4,4â€œ-diphenyl-2,2â€œ-bipyridine) ₂ (7-amino-dipyrido[3,2- <i>a</i> :2â€œ,3â€œ- <i>c</i>]phenazine)] ²⁺ , for a photo-induced energy transfer system Electronic supplementary information (ESI) available: time-resolved emission decay curves of Ru(Ph)-NHCO-Os and Ru-NHCO-Os. See http://www.rsc.org/suppdata/dt/b2/b211225f/ . <i>Dalton Transactions</i> , 2003, , 815-821.	3.3	18
29	Preparation of a series of novel fluorophores, N-substituted 6-amino and 6,6â€œ ³ -diamino-2,2â€œ:6â€œ,2â€œ ³ -terpyridine by palladium-catalyzed amination. <i>Tetrahedron Letters</i> , 2006, 47, 5079-5082.	1.4	18
30	Systematic investigations on fused Î€-system compounds of seven benzene rings prepared by photocyclization of diphenanthrylenes. <i>Photochemical and Photobiological Sciences</i> , 2017, 16, 925-934.	2.9	17
31	[Ru(bpy) ₂ (dppz-NH ₂)] ²⁺ -Complex (dppz-NH ₂ : 7-Amino-dipyrido[3,2- <i>a</i> :2â€œ,3â€œ- <i>c</i>]phenazine) as a Useful Photosensitizing Unit for the Construction of Photoinduced Energy Transfer Systems. <i>Bulletin of the Chemical Society of Japan</i> , 2000, 73, 2051-2058.	3.2	15
32	Effects of a semiflexible linker on the mechanochromic photoluminescence of bis(Pt-salen) complex. <i>Polyhedron</i> , 2016, 113, 123-131.	2.2	14
33	Excited-State Intramolecular Proton-Transfer Process of Crystalline 6-Cyano-2-(2â€œ-hydroxyphenyl)imidazo[1,2- <i>a</i>]pyridine, as Revealed by Femtosecond Pumpâ€œProbe Microspectroscopy. <i>Journal of Physical Chemistry C</i> , 2019, 123, 11224-11232.	3.1	14
34	Organic soft crystals exhibiting spontaneously reversible mechano-responsive luminescence. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2022, 51, 100479.	11.6	14
35	Structural Design of Nonlinear optical Chromophores for High-Performance Photorefractive Polymers. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 2699-2704.	1.5	13
36	Fluorescent Oligopyridines and their Photo-Functionality as Tunable Fluorophores. <i>Current Organic Chemistry</i> , 2007, 11, 195-211.	1.6	13

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37	A novel bipyridine-based fluorescent host for diphenyl phosphate: affinity, photo-response and mechanism. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1997, , 1805-1810.	0.9	12
38	Dinuclear fused salen complexes of group-10 metals: Peculiarity of the crystal structure and near-infrared luminescence of a bis(Pt-salen) complex. <i>Inorganica Chimica Acta</i> , 2017, 461, 27-34.	2.4	12
39	Packing-directed tuning and switching of organic solid-state luminescence. <i>Photochemistry</i> , 2015, , 191-225.	0.2	12
40	Photochromism of salicylideneanilines bearing super bulky substituents: Single-crystal UV-vis spectroscopic examination of bleaching under variable temperature and visible-light irradiation. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 385, 112096.	3.9	11
41	Temperature Dependence of Photorefractive Properties of PVK-based Composites. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 8316-8321.	1.5	10
42	Highly Stable Host-Guest Photorefractive Polymer Composite with Low Glass Transition Temperature. <i>Japanese Journal of Applied Physics</i> , 2006, 45, 102-106.	1.5	9
43	Design of a fluorescent host for monitoring multiple hydrogen-bonding interaction directly by intramolecular charge-transfer emission. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1998, , 1391-1396.	0.9	8
44	A distance-controlled oligopeptide linker as a novel photo-induced energy transfer switch by secondary structural transition. <i>Chemical Communications</i> , 2003, , 742-743.	4.1	8
45	Spontaneous helical folding of bis(Ni-salphen) complexes in solution and in the solid state: spectroscopic tracking of the unfolding process induced by Na ⁺ ions. <i>Dalton Transactions</i> , 2014, 43, 5899.	3.3	8
46	Aggregation-induced emission effect on turn-off fluorescent switching of a photochromic diarylethene. <i>Beilstein Journal of Organic Chemistry</i> , 2019, 15, 2204-2212.	2.2	7
47	A comparative study of the electronic spectra, fluorescence quantum yields, cyclic voltammograms and theoretical calculations of phenanthrene-type benzodifurans. <i>Tetrahedron</i> , 2016, 72, 4159-4168.	1.9	6
48	Propylamino-connected fluorescent terpyridine dimer and trimer: syntheses, photophysical properties and formation of duplex-type complexes with Cd(II). <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 8895.	2.8	4
49	Synthesis and Properties of Salicylaldehydes Fine-Tuned by Modular Assembly using Plug-and-Socket Type Extendibility. <i>Chemistry - A European Journal</i> , 2017, 23, 8286-8294.	3.3	4
50	Triarylmethane dye-conjugated hexanuclear zinc complexes: Photophysical properties and cyanide anion-binding behavior. <i>Dyes and Pigments</i> , 2015, 121, 372-378.	3.7	3
51	Effects of interaction between the chelate rings and π -conjugated systems in fused salphen complexes on UV-Vis-NIR spectra. <i>Journal of Physical Organic Chemistry</i> , 2017, 30, e3635.	1.9	3
52	Halogen-substituent effect on the spectroscopic properties of 2-phenyl-6-dimethylaminobenzothiazoles. <i>Tetrahedron Letters</i> , 2019, 60, 1702-1705.	1.4	3
53	Spectroscopic properties of push-pull 2-(4-carboxyphenyl)-6-dimethylaminobenzothiazole derivatives in solution and the solid state. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 376, 324-332.	3.9	3
54	Improvement of the Cycle Property of Binder-Free LiCoO ₂ Positive Electrode Film Deposited via the Pulsed Electrophoretic Deposition. <i>Materials Transactions</i> , 2019, 60, 2576-2579.	1.2	3

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55	Solid-State Characterization of a Fused Salphenâ€“Nickel Metallopolymer Prepared via Transmetalation in a Heterogeneous Reaction System. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2015, 25, 906-911.	3.7	2
56	Computational Investigation on ESIPT-driven Luminescence of Imidazo[1,2-a]pyridine Derivatives Regulated by Inter/Intramolecular Hydrogen bonding. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2021, 409, 113140.	3.9	2
57	Spectroscopic Tracking of Schiff Base Compoundsâ€™ Hydrogen Bonding Reorganization Associated with Solid-to-Solid Phase Transition. <i>Journal of Physical Chemistry A</i> , 2014, 118, 6979-6984.	2.5	1
58	Luminescent Crystalâ€“Control of Excited-State Intramolecular Proton Transfer (ESIPT) Luminescence Through Polymorphism. , 2020, , 271-298.		1
59	Efficient S1-S1 Radiationless Energy Transfer in Solid Cyclohexane and 1,4-Dioxane Solutions at Unusually Low Concentration. <i>Chemistry Letters</i> , 1997, 26, 731-732.	1.3	0
60	Time-Resolved X-ray Crystallography Using Synchrotron Radiation. <i>Nihon Kessho Gakkaishi</i> , 2021, 63, 24-30.	0.0	0