

Masakatsu Matsumoto

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Advanced chemistry of dioxetane-based chemiluminescent substrates originating from bioluminescence. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2004, 5, 27-53.	11.6	178
2	Viscosity Dependence of the Chemically Induced Electron-Exchange Chemiluminescence Triggered from a Bicyclic Dioxetane. <i>Journal of the American Chemical Society</i> , 2000, 122, 8631-8634.	13.7	52
3	Synthesis of 5-alkyl-1-aryl-4,4-dimethyl-2,6,7-trioxabicyclo[3.2.0]heptanes as a chemiluminescent substrate with remarkable thermal stability. <i>Tetrahedron Letters</i> , 1997, 38, 2863-2866.	1.4	48
4	Reversible 1,4-cycloaddition of singlet oxygen to N-substituted 2-pyridones: 1,4-endoperoxide as a versatile chemical source of singlet oxygen. <i>Chemical Communications</i> , 2005, , 483.	4.1	47
5	Structural Aspects of 1,2-Dioxetanes Active toward Intramolecular Charge-Transfer-Induced Chemiluminescent Decomposition. <i>Bulletin of the Chemical Society of Japan</i> , 2005, 78, 1899-1920.	3.2	45
6	Intramolecular Charge-Transfer-Induced Decomposition Promoted by an Aprotic Polar Solvent for Bicyclic Dioxetanes Bearing a 4-(Benzothiazol-2-yl)-3-hydroxyphenyl Moiety. <i>Journal of Organic Chemistry</i> , 2011, 76, 902-908.	3.2	32
7	Base-induced chemiluminescence of 5-tert-butyl-1-(4-hydroxybenzyl)-1,2-dioxetanes: effect of substituents on the chemiluminescence profile in aqueous medium. <i>Tetrahedron Letters</i> , 2001, 42, 8869-8872.	1.4	31
8	Synthesis and chemiluminescence of 3,3-diisopropyl-4-methoxy-4-(2-naphthyl)-1,2-dioxetanes. <i>Tetrahedron Letters</i> , 1997, 38, 411-414.	1.4	29
9	Hydrogen-Bonding Effects on the Fluorescence versus Electron-Transfer-Initiated Chemiluminescence Spectra of the Oxybenzoate Ion Derived from a Bicyclic Dioxetane. <i>Journal of Organic Chemistry</i> , 2000, 65, 2078-2082.	3.2	29
10	Thermodynamic Aspects of Thermal Decomposition and Charge-Transfer-Induced Chemiluminescent Decomposition for Bicyclic Dioxetanes Bearing a 4-(Benzothiazol-2-yl)-3-hydroxyphenyl Moiety. <i>Journal of Organic Chemistry</i> , 2010, 75, 3678-3684.	3.2	27
11	Synthesis of 3-alkoxy-3-aryl-4,4-diisopropyl-1,2-dioxetanes and their base-induced chemiluminescence. <i>Tetrahedron</i> , 1999, 55, 4287-4298.	1.9	24
12	Synthesis of 3,3-diisopropyl-4-methoxy-4-(2-siloxy-2-naphthyl)-1,2-dioxetanes and their fluoride-induced chemiluminescent decomposition. <i>Tetrahedron</i> , 1999, 55, 6831-6840.	1.9	23
13	Synthesis of bicyclic dioxetanes bearing a 3-hydroxy-4-isoxazolylphenyl moiety: new CIEEL-active dioxetanes emitting light with remarkable high-efficiency in aqueous medium. <i>Tetrahedron Letters</i> , 2002, 43, 8955-8958.	1.4	22
14	Synthesis and fluoride-induced chemiluminescent decomposition of bicyclic dioxetanes substituted with a 2-hydroxynaphthyl group. <i>Tetrahedron</i> , 2006, 62, 5808-5820.	1.9	22
15	Synthesis of Sulfanyl-, Sulfinyl-, and Sulfonyl-Substituted Bicyclic Dioxetanes and Their Base-Induced Chemiluminescence. <i>Journal of Organic Chemistry</i> , 2010, 75, 879-884.	3.2	21
16	Bicyclic dioxetanes bearing a 4-(benzoazol-2-yl)-3-hydroxyphenyl moiety: chemiluminescence profile for base-induced decomposition in aprotic medium and in aqueous medium. <i>Tetrahedron Letters</i> , 2005, 46, 6075-6078.	1.4	20
17	Synthesis of 3-ethoxy-4,4-diisopropyl-1,2-dioxetanes bearing a benzo(b)furan-2-yl or a benzo(b)thiophen-2-yl group: CIEEL-active dioxetanes emitting red light. <i>Luminescence</i> , 1999, 14, 345-348.	2.9	19
18	Synthesis of 5-tert-butyl-1-(3-tert-butyl-dimethylsiloxy)phenyl-4,4-dimethyl-2,6,7-trioxabicyclo[3.2.0]heptanes and their fluoride-induced chemiluminescent decomposition: effect of a phenolic electron donor on the CIEEL decay rate in aprotic polar solvent. <i>Luminescence</i> , 2002, 17, 305-312.	2.9	19

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19	Synthesis of bicyclic dioxetanes tethering a fluororescer through an α -carbamoyl-substituted linker and their high-performance chemiluminescence in an aqueous system. <i>Tetrahedron</i> , 2012, 68, 6079-6087.	1.9	18
20	Thermal stability and chemiluminescence of 3-alkoxy-3-aryl-4,4-diisopropyl-1,2-dioxetanes. <i>Journal of the Chemical Society Chemical Communications</i> , 1995, , 431.	2.0	17
21	Synthesis and Chemiluminescence of 3-Biphenyl-4,4-diisopropyl-3-methoxy-1,2-Dioxetanes. <i>Heterocycles</i> , 1995, 41, 2419.	0.7	17
22	Rotamer-dependent chemiluminescence in the intramolecular charge-transfer-induced decomposition of bicyclic dioxetanes bearing a hydroxyaryl group. <i>Tetrahedron Letters</i> , 2008, 49, 5372-5375.	1.4	16
23	Synthesis of Thermally Stable Acylamino-Substituted Bicyclic Dioxetanes and Their Base-Induced Chemiluminescent Decomposition. <i>Journal of Organic Chemistry</i> , 2010, 75, 5920-5926.	3.2	16
24	Fluoride-induced chemiluminescent decomposition of dioxetanes bearing a silyloxy moiety to produce an alkyl aryl ketone as an emitter. <i>Tetrahedron</i> , 2003, 59, 4811-4819.	1.9	15
25	Color modulation for intramolecular charge-transfer-induced chemiluminescence of 1,2-dioxetanes. <i>Chemical Record</i> , 2008, 8, 213-228.	5.8	15
26	Crucial Dependence of Chemiluminescence Efficiency on the Syn/Anti Conformation for Intramolecular Charge-Transfer-Induced Decomposition of Bicyclic Dioxetanes Bearing an Oxidizable Group. <i>Journal of Organic Chemistry</i> , 2011, 76, 5006-5017.	3.2	15
27	Thermal decomposition of 1-(aminophenyl)-5-tert-butyl-4,4-dimethyl-2,6,7-trioxabicyclo[3.2.0]heptanes: unusual C-O bond cleavage competing with normal fragmentation of 1,2-dioxetanes. <i>Chemical Communications</i> , 1998, , 2319-2320.	4.1	14
28	Chemiluminescence in molecular recognition: base-induced decomposition of optically active dioxetanes bearing a bisnaphthol moiety with a complex of optically active crown ether-potassium tert-butoxide. <i>Chemical Communications</i> , 2005, , 808-810.	4.1	13
29	Base-induced cyclization of 1-benzyloxy-2,2,4,4-tetramethylpentan-3-ones: intramolecular nucleophilic addition of an anion of a benzyl ether to the carbonyl moiety without the Wittig rearrangement or protophilic decomposition. <i>Chemical Communications</i> , 1997, , 2395-2396.	4.1	12
30	Singlet oxygenation of 4-(4-tert-butyl-3,3-dimethyl-2,3-dihydrofuran-5-yl)-2-pyridone: non-stereospecific 1,4-addition of singlet oxygen to a 1,3-diene system and thermal rearrangement of the resulting 1,4-endoperoxides to stable 1,2-dioxetanes. <i>Chemical Communications</i> , 2000, , 821-822.	4.1	12
31	Design and synthesis of chemiluminescent substrates with high luminescent efficiency in an aqueous system: 5-tert-butyl-4,4-dimethyl-2,6,7-trioxabicyclo[3.2.0]heptanes bearing a 3-hydroxy-4-(1-iminoethyl)phenyl moiety at the 1-position. <i>Luminescence</i> , 2001, 16, 275-280.	2.9	12
32	Color modulation for chemiluminescence of a dioxetane bearing a 3-(anthracen-9-yl)-5-hydroxyphenyl moiety induced by a complex of crown ether with potassium tert-butoxide. <i>Tetrahedron Letters</i> , 2004, 45, 8079-8082.	1.4	12
33	An intramolecular charge/electron transfer chemiluminescence mechanism of oxidophenyl-substituted 1,2-dioxetane. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 16005.	2.8	12
34	Hydrogen bonding network-assisted chemiluminescent thermal decomposition of 3-hydroxyphenyl-substituted dioxetanes in crystal. <i>Tetrahedron Letters</i> , 2016, 57, 2558-2562.	1.4	12
35	Fluoride-induced chemiluminescent decomposition of 1,2-dioxetanes bearing a phenyl moiety substituted with a methyl having an electron-withdrawing group Electronic supplementary information (ESI) available: experimental section. See http://www.rsc.org/suppdata/cc/b2/b210857g/ . <i>Chemical Communications</i> , 2003, , 482-483.	4.1	10
36	Intramolecular charge-transfer-induced chemiluminescent decomposition of 1,2-dioxetanes bearing a phenylmethanide anion. <i>Tetrahedron</i> , 2005, 61, 9569-9585.	1.9	10

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37	Solvent-promoted chemiluminescent decomposition of a bicyclic dioxetane bearing a 4-(benzothiazol-2-yl)-3-hydroxyphenyl moiety. <i>Tetrahedron Letters</i> , 2008, 49, 4170-4173.	1.4	10
38	Base-Induced Chemiluminescent Decomposition of Bicyclic Dioxetanes Bearing a (Benzothiazol-2-yl)-3-hydroxyphenyl Group: A Radiationless Pathway Leading to Marked Decline of Chemiluminescence Efficiency. <i>Journal of Organic Chemistry</i> , 2012, 77, 4725-4731.	3.2	10
39	New Triggering System for Dioxetane-based Chemiluminescence: Base-induced Decomposition of Bicyclic Dioxetanes Bearing a 3-Aminophenyl or 2-Phenylindol-6-yl Moiety. <i>Chemistry Letters</i> , 2005, 34, 718-719.	1.3	9
40	Synthesis of bicyclic dioxetanes bearing a 2-hydroxy-1,1-binaphthyl-5-yl moiety active toward intramolecular charge-transfer-induced chemiluminescent decomposition. <i>Tetrahedron</i> , 2006, 62, 12424-12437.	1.9	9
41	Chemiluminescent decomposition of a dioxetane bearing a 3-(1-cyanoethenyl)phenyl moiety induced by Michael addition of an anion of malonate. <i>Tetrahedron Letters</i> , 2004, 45, 3779-3782.	1.4	8
42	Bicyclic dioxetanes bearing an inden-2-yl or a benzo(b)thiazol-2-yl moiety as a CIEEL-active chemiluminescent substrate emitting red light. <i>Luminescence</i> , 2005, 20, 63-72.	2.9	8
43	Color modulation for intramolecular charge-transfer-induced chemiluminescence of bicyclic dioxetanes bearing a 3-hydroxy-5-naphthylphenyl moiety in the coordination sphere. <i>Tetrahedron Letters</i> , 2006, 47, 8407-8411.	1.4	8
44	Marked difference in singlet-chemiexcitation efficiency between syn-anti isomers of spiro[1,2-dioxetane-3,1-dihydroisobenzofuran] for intramolecular charge-transfer-induced decomposition. <i>Tetrahedron Letters</i> , 2008, 49, 6145-6147.	1.4	7
45	Novel Intramolecular Cyclization of 2-(Buta-1,3-dienyl)benzyl Anions to 6,7(9)-dihydro-5H-benzocycloheptenyl Anions Leading to Successive Formation of 1,2-dihydrocyclopropa[1,2-naphthalenes. <i>Helvetica Chimica Acta</i> , 2013, 96, 1704-1713.	1.6	7
46	Chemiexcitation efficiency for the charge-transfer-induced chemiluminescent decomposition of 3-hydroxyphenyl-substituted dioxetanes in an aqueous system. <i>Tetrahedron Letters</i> , 2014, 55, 1644-1647.	1.4	7
47	Highly effective and rapid emission of light from bicyclic dioxetanes bearing a 3-hydroxyphenyl substituted with a 4-p-oligophenylene moiety in an aqueous system: Two different ways for the enhancement of chemiluminescence efficiency. <i>Tetrahedron</i> , 2020, 76, 131203.	1.9	7
48	Palladium-Catalyzed Dehydrative Aromatization of Cyclohexenone Oximes to Anilines. <i>Synthetic Communications</i> , 1994, 24, 1441-1446.	2.1	6
49	Kinetics of Base Catalyzed Chemiluminescence Reaction of Spiro[adamantane-1,3-(4-(m-hydroxyphenyl)-4-methoxy-1,2-dioxetane)]. <i>Chemistry Letters</i> , 2002, 31, 762-763.	1.3	6
50	Novel intramolecular cyclization of 2-(buta-1,3-dienyl)-3-methylpyrazines and 3-(buta-1,3-dienyl)-4-methyl-1,2,5-oxadiazoles into 5H-cycloheptapyrazines and 4H-cyclohepta-1,2,5-oxadiazoles. <i>Tetrahedron Letters</i> , 2004, 45, 3895-3898.	1.4	6
51	Organic superbase-induced chemiluminescent decomposition of a hydroxyaryl-substituted dioxetane: Unique effect of a bifunctional guanidine base on the chemiluminescence profile of a bicyclic dioxetane bearing a 4-(benzoxazol-2-yl)-3,5-dihydroxyphenyl moiety. <i>Tetrahedron Letters</i> , 2018, 59, 971-977.	1.4	6
52	Synthesis and chemiluminescent decomposition of spiro[1,2-dioxetane-3,6-benzo(c)chromene]s. <i>Luminescence</i> , 1999, 14, 341-344.	2.9	5
53	Chemiluminescence of bicyclic dioxetanes bearing a hydroxyphenyl moiety substituted with carbazolyl, indolyl or benzotriazolyl group in the coordination sphere. <i>Luminescence</i> , 2007, 22, 420-429.	2.9	5
54	Alkaline metal ion-enhanced chemiluminescence of bicyclic dioxetanes bearing a hydroxyaryl group with an even™ substitution pattern. <i>Tetrahedron Letters</i> , 2009, 50, 2337-2341.	1.4	5

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55	Solvent effect on base-induced chemiluminescent decomposition of bicyclic dioxetanes bearing a 3-hydroxyphenyl group. <i>Tetrahedron</i> , 2021, 88, 132147.	1.9	5
56	Synthesis of Bicyclic Dioxetanes Bearing a 4-(Benzimidazol-2-yl)-3-hydroxyphenyl Group and Their Base-Induced Chemiluminescent Decomposition in an Aprotic Medium and in an Aqueous Medium. <i>Heterocycles</i> , 2013, 87, 65.	0.7	4
57	Effect of Intramolecular Hydrogen Bonding on Thermolysis of Dioxetane: Unusual Instability of Bicyclic Dioxetanes Bearing a Hydroxynaphthyl Group with Vicinal Substitution Pattern. <i>Chemistry Letters</i> , 2007, 36, 516-517.	1.3	2
58	Chemiluminescence in anisotropic microenvironment: splitting of chemiluminescence efficiency for charge-transfer-induced decomposition of optically active bicyclic dioxetanes bearing a 2-hydroxy-1,1'-binaphthyl-4-yl moiety under chiral recognition. <i>Tetrahedron Letters</i> , 2007, 48, 491-496.	1.4	2
59	Magnesium methoxide-induced chemiluminescent decomposition of bicyclic dioxetanes bearing a 2'-alkoxy-2-hydroxy-1,1'-binaphthyl-7-yl moiety. <i>Luminescence</i> , 2013, 28, 696-704.	2.9	2
60	Colour change of chemiluminescence for base-induced decomposition of dioxetane bearing a 4-(4-cyanophenyl)iminomethyl-3-hydroxyphenyl group. <i>Luminescence</i> , 2008, 23, 344-349.	2.9	1
61	N-Acyl group-directed color modulation in the t-BuOK-mediated chemiluminescent decomposition of hydroxyaryl-substituted dioxetanes fused with a pyrrolidine ring. <i>Tetrahedron Letters</i> , 2012, 53, 5309-5313.	1.4	1
62	Design and synthesis of chemiluminescent substrates with high luminescent efficiency in an aqueous system: 5-tert-butyl-4,4-dimethyl-2,6,7-trioxabicyclo[3.2.0]heptanes bearing a 3-hydroxy-4-(1-cinnonyl)phenyl moiety at the 1-position. <i>Luminescence</i> , 2001, 16, 275-280.	4.1	1
63	Fluoride-induced chemiluminescent decomposition of 1,2-dioxetanes bearing a phenyl moiety substituted with a methyl having an electron-withdrawing group. <i>Chemical Communications</i> , 2003, , 482-3.	0.0	0
64	Reversible 1,4-Cycloaddition of Singlet Oxygen to N-Substituted 2-Pyridones: 1,4-Endoperoxide as a Versatile Chemical Source of Singlet Oxygen. <i>ChemInform</i> , 2005, 36, no.	1.5	0
65	Marked difference in fragmentation between collision-induced excitation and chemi-excitation of keto esters produced from dioxetanes bearing a 4-(benzothiazol-2-yl)-3-hydroxyphenyl moiety in negative-mode matrix-assisted laser desorption/ionization time-o. <i>Rapid Communications in Mass Spectrometry</i> , 2010, 24, 2715-2722.		