Tohru Sato

List of Publications by Year
in descending order

85 papers	1,813 citations	279798 23 h-index	289244 40 g-index
86 all docs	86 docs citations	86 times ranked	1961 citing authors

#	Article	IF	Citations
1	A theoretical investigation into the role of catalyst support and regioselectivity of molecular adsorption on a metal oxide surface: NO reduction on Cu/Î³-alumina. Physical Chemistry Chemical Physics, 2021, 23, 2575-2585.	2.8	2
2	Design for Functional Molecules byÂVibronic Coupling Density. Springer Briefs in Molecular Science, 2021, , 57-67.	0.1	0
3	Vibronic Coupling Density Analyses forÂMolecular Deformation. Springer Briefs in Molecular Science, 2021, , 37-55.	0.1	0
4	Definitions and Derivations. Springer Briefs in Molecular Science, 2021, , 69-113.	0.1	0
5	Elucidation of the Dielsâ€“Alder Reaction Kinetics between Diphenylfulvene and Maleimide by Mechanochemistry and in Solution. ACS Sustainable Chemistry and Engineering, 2021, 9, 4453-4462.	6.7	13
6	An Open-shell, Luminescent, Two-Dimensional Coordination Polymer with a Honeycomb Lattice and Triangular Organic Radical. Journal of the American Chemical Society, 2021, 143, 4329-4338.	13.7	57
7	Jahn-Teller effect in the cubic fullerides A3C60. Physical Review B, 2021, 103, .	3.2	3
8	Environment-sensitive emission of anionic hydrogen-bonded urea-derivativeâ€“acetate-ion complexes and their aggregation-induced emission enhancement. Communications Chemistry, 2021, 4, .	4.5	4
9	Electrochemical Properties and Excited-State Dynamics of Azaperylene Derivatives. Journal of Physical Chemistry B, 2020, 124, 9921-9930.	2.6	13
10	Origin of aggregation-induced enhanced emission: role of pseudo-degenerate electronic states of excimers formed in aggregation phases. Journal of Materials Chemistry C, 2020, 8, 8036-8046.	5.5	9
11	Suppression of Internal Conversions from Pseudo-Degenerate Excited Electronic States. , 2020, , 79-92.		0
12	Force-Induced Dissolution of Imaginary Mode in Mechanochemical Reaction: Dibenzophenazine Synthesis. Journal of Physical Chemistry C, 2019, 123, 21581-21587.	3.1	9
13	Absence of delayed fluorescence and tripletâ€“triplet annihilation in organic light emitting diodes with spatially orthogonal bianthracenes. Journal of Materials Chemistry C, 2019, 7, 2541-2547.	5.5	26
14	Model building of metal oxide surfaces and vibronic coupling density as a reactivity index: Regioselectivity of CO2 adsorption on Ag-loaded Ga2O3. Chemical Physics Letters, 2019, 715, 239-243.	2.6	2
15	A luminescent organic radical with two pyridyl groups: high photostability and dual stimuli-responsive properties, with theoretical analyses of photophysical processes. Chemical Science, 2018, 9, 1996-2007.	7.4	67
16	Applications of Vibronic Coupling Density. Journal of Physics: Conference Series, 2018, 1148, 012004.	0.4	1
17	Quadratic Jahn-Teller effect of fullerene anions. Physical Review B, 2018, 98, .	3.2	5
18	Near infrared light induced plasmonic hot hole transfer at a nano-heterointerface. Nature Communications, 2018, 9, 2314.	12.8	103

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19	Comprehensive experimental investigation of mechanically induced 1,4-diazines synthesis in solid state. Tetrahedron, 2017, 73, 2305-2310.	1.9	14
20	Fluorescence via Reverse Intersystem Crossing from Higher Triplet States in a Bisanthracene Derivative. Scientific Reports, 2017, 7, 4820.	3.3	25
21	Efficient emitting molecules in organic light-emitting diodes on the basis of the control of vibronic couplings. Journal of Physics: Conference Series, 2017, 833, 012020.	0.4	2
22	Fluorescence via Reverse Intersystem Crossing from Higher Triplet States. Journal of Computer Chemistry Japan, 2016, 14, 189-192.	0.1	7
23	Thermodynamical vibronic coupling constant and density: Chemical potential and vibronic coupling in reactions. Chemical Physics Letters, 2016, 652, 157-161.	2.6	7
24	Lowering the Activation Energy under Mechanochemical Conditions: The Case of 2,3â€diphenylquinoxaline. ChemistrySelect, 2016, 1, 984-988.	1.5	13
25	Synergistic luminescence enhancement of a pyridyl-substituted triarylmethyl radical based on fluorine substitution and coordination to gold. Chemical Communications, 2016, 52, 13393-13396.	4.1	43
26	Gate-Tunable Dirac Point of Molecular Doped Graphene. ACS Nano, 2016, 10, 2930-2939.	14.6	49
27	Fluorescence behavior of 5,10-disubstituted [5]helicene derivatives in solution and the effect of self-assembly on their radiative and non-radiative rate constants. Journal of Materials Chemistry C, 2016, 4, 2811-2819.	5.5	15
28	Fluorescence enhancement of non-fluorescent triphenylamine: A recipe to utilize carborane cluster substituents. Chemical Physics Letters, 2015, 633, 190-194.	2.6	27
29	Reactivity index for Dielsâ€“Alder cycloadditions to large polycyclic aromatic hydrocarbons using vibronic coupling density. Tetrahedron Letters, 2015, 56, 590-594.	1.4	6
30	Strategy for Designing Electron Donors for Thermally Activated Delayed Fluorescence Emitters. Journal of Physical Chemistry C, 2015, 119, 1291-1297.	3.1	137
31	Low-Lying Electronic States in Bismuth Trimer Bi₃ As Revealed by Laser-Induced NIR Emission Spectroscopy in Solid Ne. Journal of Physical Chemistry A, 2015, 119, 2644-2650.	2.5	2
32	Enhanced Electroluminescence from a Thermally Activated Delayed-Fluorescence Emitter by Suppressing Nonradiative Decay. Physical Review Applied, 2015, 3, .	3.8	81
33	One-Shot Double Amination of Sondheimerâ€“Wong Diynes: Synthesis of Photoluminescent Dinaphthopentalenes. Organic Letters, 2015, 17, 3014-3017.	4.6	21
34	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.	5.5	23
35	Pseudo Jahnâ€“Teller Origin of Buckling Distortions in Two-Dimensional Triazine-Based Graphitic Carbon Nitride (g-C₃N₄) Sheets. Journal of Physical Chemistry C, 2015, 119, 12008-12015.	3.1	40
36	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.	3.1	116

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37	Reactivity of Endohedral Metallofullerene La2@C80 in Nucleophilic and Electrophilic Attacks: Vibronic Coupling Density Approach. Journal of Organic Chemistry, 2015, 80, 141-147.	3.2	6
38	A light-emitting mechanism for organic light-emitting diodes: molecular design for inverted singletâ€“triplet structure and symmetry-controlled thermally activated delayed fluorescence. Journal of Materials Chemistry C, 2015, 3, 870-878.	5.5	51
39	Regioselectivity in multiple cycloadditions to fullerene C60: vibronic coupling density analysis. Tetrahedron, 2014, 70, 3510-3513.	1.9	9
40	Quantum yield in blue-emitting anthracene derivatives: vibronic coupling density and transition dipole moment density. Physical Chemistry Chemical Physics, 2014, 16, 14244-14256.	2.8	42
41	Fluorescent triphenylamine derivative: Theoretical design based on reduced vibronic coupling. Chemical Physics Letters, 2014, 615, 44-49.	2.6	20
42	Jahnâ€“Teller Instability of Icosahedral [W@Au12]â^'. Journal of Chemical Theory and Computation, 2014, 10, 613-622.	5.3	10
43	Enhancement of fluorescence in anthracene by chlorination: Vibronic coupling and transition dipole moment density analysis. Chemical Physics, 2014, 430, 47-55.	1.9	40
44	Pseudo Jahnâ€“Teller origin of distortion in [6]cycloparaphenylene. Chemical Physics Letters, 2014, 598, 69-74.	2.6	12
45	A designed fluorescent anthracene derivative: Theory, calculation, synthesis, and characterization. Chemical Physics Letters, 2014, 602, 80-83.	2.6	22
46	Vibronically induced activation mechanism in photocatalysis of highly dispersed vanadium oxide supported on silica, V2O5/SiO2: Evidence in phosphorescence spectra. Chemical Physics Letters, 2013, 584, 63-66.	2.6	1
47	uplings in <mml:math altimg="si21.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/x	2.6	2
48	Reaction mechanism in the mechanochemical synthesis of dibenzophenazine: application of vibronic coupling density analysis. Tetrahedron Letters, 2013, 54, 5920-5923.	1.4	9
49	Vibronic coupling density analysis for the chain-length dependence of reorganization energies in oligofluorenes: a comparative study with oligothiophenes. Physical Chemistry Chemical Physics, 2013, 15, 14006.	2.8	9
50	Vibronic coupling density and related concepts. Journal of Physics: Conference Series, 2013, 428, 012010.	0.4	22
51	Vibronic couplings in cycloadditions to fullerenes. Journal of Physics: Conference Series, 2013, 428, 012003.	0.4	7
52	Vibronic bands in the HOMO-LUMO excitation of linear polyyne molecules. Journal of Physics: Conference Series, 2013, 428, 012004.	0.4	6
53	Theoretical design for carrier-transporting molecules in view of vibronic couplings. Journal of Photonics for Energy, 2012, 2, 021201.	1.3	2
54	Effect of Coulomb interactions on the vibronic couplings in ${m C}_{60}^-$C60â^'. Journal of Chemical Physics, 2012, 136, 174315.	3.0	8

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55	Critical reinvestigation of vibronic couplings in picene from view of vibronic coupling density analysis. Physical Review B, 2012, 85, .	3.2	6
56	Mechanisms of localization in isotope-substituted dynamical Jahn-Teller systems. Europhysics Letters, 2012, 100, 43001.	2.0	2
57	Chemical Reactivity in Nucleophilic Cycloaddition to C70: Vibronic Coupling Density and Vibronic Coupling Constants as Reactivity Indices. Journal of Organic Chemistry, 2012, 77, 9702-9706.	3.2	17
58	Pseudo-Jahnâ€“Teller origin of icosahedral instability in boron buckyball, B80. Chemical Physics Letters, 2012, 543, 111-116.	2.6	15
59	Electronic Spectra of Cycl[3.3.2]azine and Related Compounds: Solvent Effect on Vibronic Couplings. Journal of Physical Chemistry A, 2012, 116, 9100-9109.	2.5	16
60	C60 bearing ethylene moieties. Chemical Physics Letters, 2012, 531, 257-260.	2.6	23
61	Electronic state of an organic molecular magnet: Soft x-ray spectroscopy study ofÎ±-TDAE-C60single crystal. Physical Review B, 2011, 84, .	3.2	1
62	Theoretical design of a hole-transporting molecule: hexaaza[16]parabiphenylophane. Journal of Materials Chemistry, 2011, 21, 6375.	6.7	28
63	Molecular design for high-spin molecules in view of vibronic couplings. Polyhedron, 2011, 30, 3048-3053.	2.2	1
64	Vibronic coupling density analysis for free-base porphin cation. Chemical Physics Letters, 2011, 505, 42-46.	2.6	1
65	Vibronic interactions in hole-transporting molecules: An interplay with electronâ€“hole interactions. Chemical Physics Letters, 2011, 507, 151-156.	2.6	3
66	Estimation of the Vibronic Coupling Constants of Fullerene Monoanion: Comparison Between Experimental and Simulated Results. Progress in Theoretical Chemistry and Physics, 2011, , 245-264.	0.2	1
67	Percolation paths for charge transports in N,Nâ€²-diphenyl-N,Nâ€²-di(m-tolyl)benzidine (TPD). Organic Electronics, 2010, 11, 255-265.	2.6	49
68	Vibronic coupling density analysis of hole-transporting materials: Electron-density difference in DFT and HF methods. Organic Electronics, 2010, 11, 1277-1287.	2.6	13
69	Vibronic coupling density analysis for Î±-oligothiophene cations: A new insight for polaronic defects. Chemical Physics, 2010, 369, 108-121.	1.9	12
70	Electronâ€“vibration interactions in triphenylamine cation: Why are triphenylamine-based molecules good hole-transport materials?. Chemical Physics Letters, 2010, 486, 130-136.	2.6	19
71	Reduced vibronic coupling density and its application to bis(ethylenedithio)tetrathiafulvalene (BEDT-TTF). Chemical Physics Letters, 2010, 491, 65-71.	2.6	11
72	Vibronic coupling in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msubsup><mml:mtext>C</mml:mtext><mml:mrow><mml:mn>60</mml:mn></mml:mrow><mml:m revisited: Derivations from photoelectron spectra and DFT calculations. Physical Review B, 2010, 82, .	3.2	36

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73	A boron-containing molecule as an efficient electron-transporting material with low-power consumption. Applied Physics Letters, 2010, 97, 142111.	3.3	30
74	Inelastic electron tunneling spectra and vibronic coupling density analysis of 2,5-dimercapto-1,3,4-thiadiazole and tetrathiafulvalene dithiol. Nanoscale, 2010, 2, 2186.	5.6	12
75	Active Center Induced by Vibronic Interactions in V2O5/SiO2. Topics in Catalysis, 2009, 52, 808-812.	2.8	4
76	Vibronic Coupling Constant and Vibronic Coupling Density. Springer Series in Chemical Physics, 2009, , 99-129.	0.2	24
77	Electronâ€“vibration interactions in carrier-transport material: Vibronic coupling density analysis in TPD. Chemical Physics Letters, 2008, 458, 152-156.	2.6	38
78	Vibronic Coupling in Naphthalene Anion:â€‰ Vibronic Coupling Density Analysis for Totally Symmetric Vibrational Modes. Journal of Physical Chemistry A, 2008, 112, 758-767.	2.5	75
79	Vibronic and spin-orbit coupling of a d9 transition-metal ion encapsulated in an icosahedral cage: The (Î“8+Î“9)Ã—(g+2h) Jahn-Teller problem. Journal of Chemical Physics, 2007, 126, 184501.	3.0	6
80	Symmetry of the electronic and geometric structures of metallofullerene M@C74 (M=Be, Mg, Ca, Sr,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	2.8	10
81	Calculation of vibronic coupling constant and vibronic coupling density analysis. Journal of Molecular Structure, 2007, 838, 116-123.	3.6	18
82	Analytical solutions for the EâŠ—e dynamic Jahnâ€“Teller problem in the strong coupling limit. Journal of Molecular Structure, 2007, 838, 8-12.	3.6	0
83	Vibronic coupling in benzene cation and anion: Vibronic coupling and frontier electron density in Jahn-Teller molecules. Journal of Chemical Physics, 2006, 124, 154303.	3.0	39
84	Vibronic coupling in cyclopentadienyl radical: A method for calculation of vibronic coupling constant and vibronic coupling density analysis. Journal of Chemical Physics, 2006, 124, 024314.	3.0	50
85	The EâŠ—e dynamic Jahn-Teller problem: A new insight from the strong coupling limit. Journal of Chemical Physics, 2005, 122, 054104.	3.0	11