

# Satoshi Maeda

## List of Publications by Year in descending order

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210  
papers

7,945  
citations

53794

45  
h-index

64796

79  
g-index

231  
all docs

231  
docs citations

231  
times ranked

5222  
citing authors

#	ARTICLE	IF	CITATIONS
1	Systematic exploration of the mechanism of chemical reactions: the global reaction route mapping (GRRM) strategy using the ADDF and AFIR methods. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 3683.	2.8	456
2	A scaled hypersphere search method for the topography of reaction pathways on the potential energy surface. <i>Chemical Physics Letters</i> , 2004, 384, 277-282.	2.6	360
3	Global Mapping of Equilibrium and Transition Structures on Potential Energy Surfaces by the Scaled Hypersphere Search Method: Applications to ab Initio Surfaces of Formaldehyde and Propyne Molecules. <i>Journal of Physical Chemistry A</i> , 2005, 109, 5742-5753.	2.5	310
4	Intrinsic reaction coordinate: Calculation, bifurcation, and automated search. <i>International Journal of Quantum Chemistry</i> , 2015, 115, 258-269.	2.0	300
5	Global Reaction Route Mapping on Potential Energy Surfaces of Formaldehyde, Formic Acid, and Their Metal-Substituted Analogues. <i>Journal of Physical Chemistry A</i> , 2006, 110, 8933-8941.	2.5	270
6	Development of Azo-Based Fluorescent Probes to Detect Different Levels of Hypoxia. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 13028-13032.	13.8	241
7	Finding Reaction Pathways of Type A + B $\rightarrow$ X: Toward Systematic Prediction of Reaction Mechanisms. <i>Journal of Chemical Theory and Computation</i> , 2011, 7, 2335-2345.	5.3	190
8	Implementation and performance of the artificial force induced reaction method in the GRRM17 program. <i>Journal of Computational Chemistry</i> , 2018, 39, 233-251.	3.3	161
9	Communications: A systematic method for locating transition structures of A+B $\rightarrow$ X type reactions. <i>Journal of Chemical Physics</i> , 2010, 132, 241102.	3.0	157
10	Exploring transition state structures for intramolecular pathways by the artificial force induced reaction method. <i>Journal of Computational Chemistry</i> , 2014, 35, 166-173.	3.3	151
11	Updated Branching Plane for Finding Conical Intersections without Coupling Derivative Vectors. <i>Journal of Chemical Theory and Computation</i> , 2010, 6, 1538-1545.	5.3	137
12	Artificial Force Induced Reaction (AFIR) Method for Exploring Quantum Chemical Potential Energy Surfaces. <i>Chemical Record</i> , 2016, 16, 2232-2248.	5.8	125
13	Finding Reaction Pathways for Multicomponent Reactions: The Passerini Reaction is a Four-Component Reaction. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 644-649.	13.8	124
14	Structures of Water Octamers (H <sub>2</sub> O) <sub>8</sub> : Exploration on Ab Initio Potential Energy Surfaces by the Scaled Hypersphere Search Method. <i>Journal of Physical Chemistry A</i> , 2007, 111, 4527-4534.	2.5	118
15	No Straight Path: Roaming in Both Ground- and Excited-State Photolytic Channels of NO <sub>3</sub> $\rightarrow$ NO + O <sub>2</sub> . <i>Science</i> , 2012, 335, 1075-1078.	12.6	112
16	Computational Catalysis Using the Artificial Force Induced Reaction Method. <i>Accounts of Chemical Research</i> , 2016, 49, 763-773.	15.6	112
17	Automated Global Mapping of Minimal Energy Points on Seams of Crossing by the Anharmonic Downward Distortion Following Method: A Case Study of H <sub>2</sub> CO. <i>Journal of Physical Chemistry A</i> , 2009, 113, 1704-1710.	2.5	92
18	From Roaming Atoms to Hopping Surfaces: Mapping Out Global Reaction Routes in Photochemistry. <i>Journal of the American Chemical Society</i> , 2015, 137, 3433-3445.	13.7	91

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19	Mechanochemical synthesis of magnesium-based carbon nucleophiles in air and their use in organic synthesis. <i>Nature Communications</i> , 2021, 12, 6691.	12.8	91
20	Low-Energy Electrocatalytic CO <sub>2</sub> Reduction in Water over Mn-Complex Catalyst Electrode Aided by a Nanocarbon Support and K <sup>+</sup> Cations. <i>ACS Catalysis</i> , 2018, 8, 4452-4458.	11.2	79
21	Iridium-Catalyzed Asymmetric Borylation of Unactivated Methylene C(sp <sup>3</sup> )–H Bonds. <i>Journal of the American Chemical Society</i> , 2019, 141, 6817-6821.	13.7	79
22	Kinetic prediction of reverse intersystem crossing in organic donor–acceptor molecules. <i>Nature Communications</i> , 2020, 11, 3909.	12.8	75
23	Reaction Mechanism of the Anomalous Formal Nucleophilic Borylation of Organic Halides with Silylborane: Combined Theoretical and Experimental Studies. <i>Journal of the American Chemical Society</i> , 2015, 137, 4090-4099.	13.7	71
24	Electrochemical Dearomative Dicarboxylation of Heterocycles with Highly Negative Reduction Potentials. <i>Journal of the American Chemical Society</i> , 2022, 144, 3685-3695.	13.7	67
25	A new approach for finding a transition state connecting a reactant and a product without initial guess: applications of the scaled hypersphere search method to isomerization reactions of HCN, (H <sub>2</sub> O) <sub>2</sub> , and alanine dipeptide. <i>Chemical Physics Letters</i> , 2005, 404, 95-99.	2.6	66
26	Quantum Chemistry Study of H <sup>+</sup> (H <sub>2</sub> O) <sub>8</sub> : A Global Search for Its Isomers by the Scaled Hypersphere Search Method, and Its Thermal Behavior. <i>Journal of Physical Chemistry A</i> , 2007, 111, 10732-10737.	2.5	65
27	Systematic Exploration of Minimum Energy Conical Intersection Structures near the Franck–Condon Region. <i>Journal of Physical Chemistry A</i> , 2014, 118, 12050-12058.	2.5	65
28	Automated exploration of reaction channels. <i>Physica Scripta</i> , 2008, 78, 058122.	2.5	64
29	Water-catalyzed gas-phase reaction of formic acid with hydroxyl radical: A computational investigation. <i>Chemical Physics Letters</i> , 2009, 469, 57-61.	2.6	64
30	Toward Predicting Full Catalytic Cycle Using Automatic Reaction Path Search Method: A Case Study on HCo(CO) <sub>3</sub> -Catalyzed Hydroformylation. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 380-385.	5.3	61
31	An Automated and Systematic Transition Structure Explorer in Large Flexible Molecular Systems Based on Combined Global Reaction Route Mapping and Microiteration Methods. <i>Journal of Chemical Theory and Computation</i> , 2009, 5, 2734-2743.	5.3	60
32	Exploring paths of chemical transformations in molecular and periodic systems: An approach utilizing force. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2021, 11, e1538.	14.6	59
33	A Theoretical Study on the Photodissociation of Acetone: Insight into the Slow Intersystem Crossing and Exploration of Nonadiabatic Pathways to the Ground State. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 1841-1845.	4.6	58
34	Silane- and peroxide-free hydrogen atom transfer hydrogenation using ascorbic acid and cobalt-photoredox dual catalysis. <i>Nature Communications</i> , 2021, 12, 966.	12.8	58
35	Global Investigation on the Potential Energy Surface of CH <sub>3</sub> CN: Application of the Scaled Hypersphere Search Method. <i>Journal of Physical Chemistry A</i> , 2005, 109, 7319-7328.	2.5	57
36	Catalytic Transfer Hydrogenation by a Trivalent Phosphorus Compound: Phosphorus–Ligand Cooperation Pathway or P <sup>III</sup> /P <sup>V</sup> Redox Pathway?. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 4633-4637.	13.8	57

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37	Systematic Search for Isomerization Pathways of Hexasilabenzene for Finding Its Kinetic Stability. <i>Organometallics</i> , 2009, 28, 2218-2224.	2.3	56
38	Automated Search for Minimum Energy Conical Intersection Geometries between the Lowest Two Singlet States $S_0/S_1$ -MECIs by the Spin-Flip TDDFT Method. <i>Journal of Chemical Theory and Computation</i> , 2013, 9, 4116-4123.	5.3	56
39	Exploration of minimum energy conical intersection structures of small polycyclic aromatic hydrocarbons: toward an understanding of the size dependence of fluorescence quantum yields. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 22561-22565.	2.8	56
40	Synthesis and structure of stable base-free dialkylsilanimines. <i>New Journal of Chemistry</i> , 2010, 34, 1637.	2.8	55
41	Exploring the Mechanism of Ultrafast Intersystem Crossing in Rhenium(II) Carbonyl Bipyridine Halide Complexes: Key Vibrational Modes and Spin-Vibronic Quantum Dynamics. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 2335-2345.	5.3	52
42	No activation barrier synthetic route of glycine from simple molecules (NH <sub>3</sub> , CH <sub>2</sub> , and CO <sub>2</sub> ) via carboxylation of ammonium ylide: a theoretical study by the scaled hypersphere search method. <i>Chemical Physics Letters</i> , 2004, 398, 240-244.	2.6	50
43	Insight into Global Reaction Mechanism of [C <sub>2</sub> , H <sub>4</sub> , O] System from ab Initio Calculations by the Scaled Hypersphere Search Method. <i>Journal of Physical Chemistry A</i> , 2007, 111, 5099-5110.	2.5	48
44	Lowest Transition State for the Chirality-Determining Step in Ru((R)-BINAP)-Catalyzed Asymmetric Hydrogenation of Methyl-3-Oxobutanoate. <i>Journal of the American Chemical Society</i> , 2008, 130, 17228-17229.	13.7	48
45	Excited-State Roaming Dynamics in Photolysis of a Nitrate Radical. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 934-938.	4.6	45
46	Sampling of Transition States for Predicting Diastereoselectivity Using Automated Search Method—Aqueous Lanthanide-Catalyzed Mukaiyama Aldol Reaction. <i>Journal of Chemical Theory and Computation</i> , 2013, 9, 2882-2886.	5.3	45
47	Deuterium Uptake in Magnetic-Fusion Devices with Lithium-Conditioned Carbon Walls. <i>Physical Review Letters</i> , 2013, 110, 105001.	7.8	45
48	Chiral lanthanide lumino-glass for a circularly polarized light security device. <i>Communications Chemistry</i> , 2020, 3, .	4.5	45
49	Automated exploration of stable isomers of $H^{n+}(H_2O)_n$ ( $n = 5-7$ ) via ab initio calculations: An application of the anharmonic downward distortion following algorithm. <i>Journal of Computational Chemistry</i> , 2009, 30, 952-961.	3.3	44
50	Anharmonic Downward Distortion Following for Automated Exploration of Quantum Chemical Potential Energy Surfaces. <i>Bulletin of the Chemical Society of Japan</i> , 2014, 87, 1315-1334.	3.2	41
51	Catalytic Hydrogenation of Carbon Dioxide with Ammonia-Borane by Pincer-Type Phosphorus Compounds: Theoretical Prediction. <i>Journal of the American Chemical Society</i> , 2016, 138, 13481-13484.	13.7	41
52	Reactivity of Gold Clusters in the Regime of Structural Fluxionality. <i>Journal of Physical Chemistry C</i> , 2015, 119, 11120-11130.	3.1	40
53	On Benchmarking of Automated Methods for Performing Exhaustive Reaction Path Search. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 2111-2115.	5.3	38
54	Photochemical reactions of the low-lying excited states of formaldehyde: T <sub>1</sub> /S intersystem crossings, characteristics of the S <sub>1</sub> and T <sub>1</sub> potential energy surfaces, and a global T <sub>1</sub> potential energy surface. <i>Journal of Chemical Physics</i> , 2009, 130, 114304.	3.0	37

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55	Exploring Potential Energy Surfaces of Large Systems with Artificial Force Induced Reaction Method in Combination with ONIOM and Microiteration. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 5058-5063.	5.3	37
56	Kinetic Analysis for the Multistep Profiles of Organic Reactions: Significance of the Conformational Entropy on the Rate Constants of the Claisen Rearrangement. <i>Journal of Physical Chemistry A</i> , 2015, 119, 11641-11649.	2.5	36
57	Generation Mechanisms of Amino Acids in Interstellar Space via Reactions between Closed-Shell Species: Significance of Higher Energy Isomers in Molecular Evolution. <i>Astrophysical Journal</i> , 2006, 640, 823-828.	4.5	35
58	Conversion pathways between a fullerene and a ring among C <sub>20</sub> clusters by a sphere contracting walk method: Remarkable difference in local potential energy landscapes around the fullerene and the ring. <i>Journal of Chemical Physics</i> , 2006, 124, 174306.	3.0	35
59	Intramolecular vibrational frequencies of water clusters (H <sub>2</sub> O) <sub>n</sub> (n=2-5): Anharmonic analyses using potential functions based on the scaled hypersphere search method. <i>Journal of Chemical Physics</i> , 2008, 129, 074315.	3.0	35
60	Introduction of a Luminophore into Generic Polymers via Mechanoradical Coupling with a Prefluorescent Reagent. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16003-16008.	13.8	35
61	Multistep Intersystem Crossing Pathways in Cinnamate-Based UV-B Sunscreens. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4001-4007.	4.6	33
62	Discovery of a synthesis method for a difluoroglycine derivative based on a path generated by quantum chemical calculations. <i>Chemical Science</i> , 2020, 11, 7569-7577.	7.4	33
63	Global analysis of reaction pathways on the potential energy surface of cyanoacetylene by the scaled hypersphere search method. <i>Chemical Physics Letters</i> , 2006, 418, 208-216.	2.6	32
64	Global reaction route mapping on potential energy surfaces of $\text{C}_2\text{H}_2$ and $\text{C}_2\text{H}_4$ . <i>Chemical Physics Letters</i> , 2007, 447, 21-26.	2.6	32
65	A new global reaction route map on the potential energy surface of H <sub>2</sub> CO with unrestricted level. <i>Chemical Physics Letters</i> , 2008, 460, 55-58.	2.6	32
66	Automated Exploration of Photolytic Channels of HCOOH: Conformational Memory via Excited-State Roaming. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 1900-1907.	4.6	32
67	Contrasting ring-opening propensities in UV-excited ̂±-pyrone and coumarin. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 2629-2638.	2.8	32
68	Microsolvation of Hydrogen Sulfide: Exploration of H <sub>2</sub> S⋅(H <sub>2</sub> O) <sub>n</sub> and SH <sup>+</sup> ⋅(H <sub>2</sub> O) <sub>n</sub> Cluster Structures on Ab Initio Potential Energy Surfaces by the Scaled Hypersphere Search Method. <i>Journal of Physical Chemistry A</i> , 2008, 112, 2962-2968.	2.5	31
69	Finding important anharmonic terms in the sixth-order potential energy function by the scaled hypersphere search method: An application to vibrational analyses of molecules and clusters. <i>Journal of Chemical Physics</i> , 2008, 128, 144111.	3.0	31
70	Theoretical Study on the Photodissociation of Methylamine Involving S <sub>1</sub> , T <sub>1</sub> , and S <sub>0</sub> States. <i>Journal of Physical Chemistry A</i> , 2013, 117, 5757-5764.	2.5	31
71	A new method for constructing multidimensional potential energy surfaces by a polar coordinate interpolation technique. <i>Chemical Physics Letters</i> , 2003, 381, 177-186.	2.6	30
72	Exploring Multiple Potential Energy Surfaces: Photochemistry of Small Carbonyl Compounds. <i>Advances in Physical Chemistry</i> , 2012, 2012, 1-13.	2.0	29

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73	Azo-Crosslinked Double-Network Hydrogels Enabling Highly Efficient Mechanoradical Generation. <i>Journal of the American Chemical Society</i> , 2022, 144, 3154-3161.	13.7	29
74	Application of Automated Reaction Path Search Methods to a Systematic Search of Single-Bond Activation Pathways Catalyzed by Small Metal Clusters: A Case Study on H <sub>2</sub> Activation by Gold. <i>Journal of Chemical Theory and Computation</i> , 2014, 10, 1623-1630.	5.3	28
75	CASPT2 Study of Photodissociation Pathways of Ketene. <i>Journal of Physical Chemistry A</i> , 2013, 117, 7001-7008.	2.5	27
76	Ab Initio Molecular Dynamics Study of the Photoreaction of 1,1'-Dimethylstilbene upon S <sub>0</sub> → S <sub>1</sub> Excitation. <i>Journal of Physical Chemistry A</i> , 2016, 120, 8804-8812.	2.5	27
77	Isomerization in Gold Clusters upon O <sub>2</sub> Adsorption. <i>Journal of Physical Chemistry C</i> , 2017, 121, 2661-2668.	3.1	27
78	Rate Constant Matrix Contraction Method for Systematic Analysis of Reaction Path Networks. <i>Chemistry Letters</i> , 2020, 49, 553-564.	1.3	27
79	Understanding CO oxidation on the Pt(111) surface based on a reaction route network. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 14366-14375.	2.8	27
80	Ab initio Studies on Synthetic Routes of Glycine from Simple Molecules via Ammonolysis of Acetolactone: Applications of the Scaled Hypersphere Search Method. <i>Chemistry Letters</i> , 2004, 33, 1372-1373.	1.3	26
81	Ab initio reaction pathways for photodissociation and isomerization of nitromethane on four singlet potential energy surfaces with three roaming paths. <i>Journal of Chemical Physics</i> , 2014, 140, 244310.	3.0	26
82	Predicting pathways for terpene formation from first principles – routes to known and new sesquiterpenes. <i>Chemical Science</i> , 2014, 5, 1555.	7.4	26
83	Theoretical Study of Hydrogenation Catalysis of Phosphorus Compound and Prediction of Catalyst with High Activity and Wide Application Scope. <i>ACS Catalysis</i> , 2016, 6, 4859-4870.	11.2	26
84	Exploring the full catalytic cycle of rhodium( <i>rac</i> -BINAP)-catalysed isomerisation of allylic amines: a graph theory approach for path optimisation. <i>Chemical Science</i> , 2017, 8, 4475-4488.	7.4	26
85	Analyses of trajectory on-the-fly based on the global reaction route map. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 1364-1372.	2.8	26
86	A scaled hypersphere interpolation technique for efficient construction of multidimensional potential energy surfaces. <i>Chemical Physics Letters</i> , 2005, 414, 265-270.	2.6	25
87	Automated Exploration of Adsorption Structures of an Organic Molecule on RuH <sub>2</sub> ~BINAP by the ONIOM Method and the Scaled Hypersphere Search Method. <i>Journal of Physical Chemistry A</i> , 2007, 111, 13168-13171.	2.5	25
88	Finding Minimum Structures on the Seam of Crossing in Reactions of Type A + B → X: Exploration of Nonadiabatic Ignition Pathways of Unsaturated Hydrocarbons. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 852-857.	4.6	25
89	Positive Effect of Water in Asymmetric Direct Aldol Reactions with Primary Amine Organocatalyst: Experimental and Computational Studies. <i>Chemistry - an Asian Journal</i> , 2015, 10, 2112-2116.	3.3	24
90	Global search for low-lying crystal structures using the artificial force induced reaction method: A case study on carbon. <i>Physical Review B</i> , 2017, 95, .	3.2	24



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91	One-Minute Joule Annealing Enhances the Thermoelectric Properties of Carbon Nanotube Yarns via the Formation of Graphene at the Interface. ACS Applied Energy Materials, 2019, 2, 7700-7708.	5.1	24
92	A Reaction Path Network for Wöhler's Urea Synthesis. Chemistry Letters, 2019, 48, 47-50.	1.3	24
93	Chemoselective Cleavage of Si-C(sp <sup>3</sup> ) Bonds in Unactivated Tetraalkylsilanes Using Iodine Tris(trifluoroacetate). Journal of the American Chemical Society, 2021, 143, 103-108.	13.7	24
94	Photochemistry of Methyl Ethyl Ketone: Quantum Yields and S <sub>1</sub> /S <sub>0</sub> Intersystem Crossing Mechanism of Photodissociation. ChemPhysChem, 2010, 11, 3883-3895.	2.1	23
95	Quasiclassical Trajectory Studies of the Photodissociation Dynamics of NO <sub>3</sub> from the D <sub>0</sub> and D <sub>1</sub> Potential Energy Surfaces. Journal of Chemical Theory and Computation, 2013, 9, 893-900.	5.3	23
96	Exploration of Quenching Pathways of Multiluminescent Acenes Using the GRRM Method with the SF-TDDFT Method. Journal of Physical Chemistry A, 2015, 119, 11479-11487.	2.5	23
97	Classical trajectory calculations for collision-energy/electron-energy resolved two-dimensional Penning ionization electron spectra of N <sub>2</sub> , CO, and CH <sub>3</sub> CN with metastable He*(2s3S) atoms. Journal of Chemical Physics, 2002, 117, 5707-5721.	3.0	22
98	Long-Range Migration of a Water Molecule To Catalyze a Tautomerization in Photoionization of the Hydrated Formamide Cluster. Journal of Physical Chemistry A, 2010, 114, 11896-11899.	2.5	21
99	Dynamics of deuterium retention and sputtering of Li-C-O surfaces. Fusion Engineering and Design, 2012, 87, 1732-1736.	1.9	20
100	The effect of Mg <sup>2+</sup> incorporation on the structure of calcium carbonate clusters: investigation by the anharmonic downward distortion following method. Physical Chemistry Chemical Physics, 2016, 18, 2690-2698.	2.8	20
101	Different photoisomerization routes found in the structural isomers of hydroxy methylcinnamate. Physical Chemistry Chemical Physics, 2018, 20, 17583-17598.	2.8	20
102	An overlap expansion method for improving ab initio model potentials: Anisotropic intermolecular potentials of N <sub>2</sub> , CO, and C <sub>2</sub> H <sub>2</sub> with He*(2s3S). Journal of Chemical Physics, 2004, 120, 781-790.	3.0	19
103	Global investigation of potential energy surfaces for the pyrolysis of C <sub>1</sub> -C <sub>3</sub> hydrocarbons: toward the development of detailed kinetic models from first principles. Physical Chemistry Chemical Physics, 2015, 17, 27789-27805.	2.8	19
104	CO <sub>2</sub> Adsorption on Ti <sub>3</sub> O <sub>6</sub> <sup>+</sup> : A Novel Carbonate Binding Motif. Journal of Physical Chemistry C, 2019, 123, 8439-8446.	3.1	19
105	D-L Conversion Pathways between Optical Isomers of Alanine: Applications of the Scaled Hypersphere Search Method to Explore Unknown Reaction Routes in a Chiral System. Chemistry Letters, 2006, 35, 492-493.	1.3	18
106	Global ab Initio Potential Energy Surfaces for Low-Lying Doublet States of NO <sub>3</sub> . Journal of Chemical Theory and Computation, 2012, 8, 2600-2605.	5.3	18
107	Combined gradient projection/single component artificial force induced reaction (GP/SC-AFIR) method for an efficient search of minimum energy conical intersection (MECI) geometries. Chemical Physics Letters, 2017, 674, 141-145.	2.6	18
108	Global Reaction Route Mapping for Surface Adsorbed Molecules: A Case Study for H <sub>2</sub> O on Cu(111) Surface. Chemistry Letters, 2018, 47, 396-399.	1.3	18

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109	The direct observation of the doorway $1\pi^*$ state of methylcinnamate and hydrogen-bonding effects on the photochemistry of cinnamate-based sunscreens. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 19755-19763.	2.8	18
110	Combined Automated Reaction Pathway Searches and Sparse Modeling Analysis for Catalytic Properties of Lowest Energy Twins of $\text{Cu}_{13}$ . <i>Journal of Physical Chemistry A</i> , 2019, 123, 210-217.	2.5	18
111	Quantum Chemical Calculations to Trace Back Reaction Paths for the Prediction of Reactants. <i>Jacs Au</i> , 2022, 2, 1181-1188.	7.9	18
112	Experimental and theoretical investigations of isomerization reactions of ionized acetone and its dimer. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 712-719.	2.8	17
113	Analyses of bifurcation of reaction pathways on a global reaction route map: A case study of gold cluster $\text{Au}_5$ . <i>Journal of Chemical Physics</i> , 2015, 143, 014301.	3.0	17
114	Artificial Force Induced Reaction Method for Systematic Determination of Complex Reaction Mechanisms. <i>Chemical Record</i> , 2016, 16, 2349-2363.	5.8	17
115	Propargyl-Assisted Selective Amidation Applied in C-terminal Glycine Peptide Conjugation. <i>Chemistry - A European Journal</i> , 2016, 22, 18865-18872.	3.3	17
116	Exploring radiative and nonradiative decay paths in indole, isoindole, quinoline, and isoquinoline. <i>Photochemical and Photobiological Sciences</i> , 2018, 17, 315-322.	2.9	17
117	Theoretical study on mechanism of the photochemical ligand substitution of $\text{fac}[\text{Re}(\text{I}(\text{bpy})(\text{CO})_3(\text{PR})_3)]^+$ complex. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 17557-17564.	2.8	16
118	An autocatalytic cycle in autoxidation of triethylborane. <i>Chemical Communications</i> , 2017, 53, 7302-7305.	4.1	16
119	Excess charge driven dissociative hydrogen adsorption on $\text{Ti}_2\text{O}_4$ . <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 23154-23161.	2.8	16
120	Full rate constant matrix contraction method for obtaining branching ratio of unimolecular decomposition. <i>Journal of Computational Chemistry</i> , 2017, 38, 101-109.	3.3	16
121	Penning ionization electron spectroscopy of $\text{C}_6\text{H}_6$ by collision with $\text{He}^*(2\tilde{S})$ metastable atoms and classical trajectory calculations: Optimization of ab initio model potentials. <i>Journal of Chemical Physics</i> , 2005, 122, 044303.	3.0	15
122	Deciphering Time Scale Hierarchy in Reaction Networks. <i>Journal of Physical Chemistry B</i> , 2016, 120, 1961-1971.	2.6	15
123	Synthesis of Difluoroglycine Derivatives from Amines, Difluorocarbene, and $\text{CO}_2$ : Computational Design, Scope, and Applications. <i>Chemistry - A European Journal</i> , 2021, 27, 10040-10047.	3.3	15
124	Collision-energy-resolved Penning ionization electron spectroscopy of OCS with $\text{He}^*(23\text{S})$ metastable atoms. <i>Chemical Physics Letters</i> , 2003, 379, 332-339.	2.6	14
125	A systematic study on the $\text{RuHCl}(\text{BINAP})$ -catalyzed asymmetric hydrogenation mechanism by the global reaction route mapping method. <i>Journal of Molecular Catalysis A</i> , 2010, 324, 133-140.	4.8	14
126	Observation of Borane-Olefin Proximity Interaction Governing the Structure and Reactivity of Boron-Containing Macrocycles. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 14630-14635.	13.8	14



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127	Ion Chemistry of VX Surrogates and Ion Energetics Properties of VX: New Suggestions for VX Chemical Ionization Mass Spectrometry Detection. <i>Analytical Chemistry</i> , 2010, 82, 3764-3771.	6.5	13
128	Nonadiabatic Pathways of Furan and Dibenzofuran: What Makes Dibenzofuran Fluorescent?. <i>Chemistry Letters</i> , 2016, 45, 940-942.	1.3	13
129	Fluorescence Enhancement of Aromatic Macrocycles by Lowering Excited Singlet State Energies. <i>Journal of Organic Chemistry</i> , 2020, 85, 150-157.	3.2	13
130	Targeted 1,3-dipolar cycloaddition with acrolein for cancer prodrug activation. <i>Chemical Science</i> , 2021, 12, 5438-5449.	7.4	13
131	Substitution effect on the nonradiative decay and <i>trans</i> → <i>cis</i> photoisomerization route: a guideline to develop efficient cinnamate-based sunscreens. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 834-845.	2.8	13
132	DFT Study on Isomerization and Decomposition of Cuprous Dialkyldithiophosphate and Its Reaction with Alkylperoxy Radical. <i>Journal of Physical Chemistry A</i> , 2008, 112, 5720-5726.	2.5	12
133	Ab initio anharmonic calculations of vibrational frequencies of benzene by means of efficient construction of potential energy functions. <i>Chemical Physics Letters</i> , 2011, 503, 322-326.	2.6	12
134	Multiple Reaction Pathways Operating in the Mechanism of Vinylogous Mannich-Type Reaction Activated by a Water Molecule. <i>Chemistry - an Asian Journal</i> , 2014, 9, 305-312.	3.3	12
135	Palladium-Catalyzed C-H Iodination of Arenes by Means of Sulfinyl Directing Groups. <i>Chemistry - an Asian Journal</i> , 2020, 15, 2442-2446.	3.3	12
136	Classical trajectory calculations of collision energy dependence of Penning ionization cross-sections for N <sub>2</sub> and CO by He <sup>+</sup> —23S; optimization of anisotropic model potentials. <i>Chemical Physics Letters</i> , 2002, 355, 311-318.	2.6	11
137	Theoretical Investigation of the Reaction Pathway of O Atom on Si(001)-(2 × 1). <i>Journal of Physical Chemistry C</i> , 2010, 114, 15671-15677.	3.1	11
138	Exploration of Isomers of Benzene by GRRM/SCC-DFTB. <i>Chemistry Letters</i> , 2014, 43, 702-704.	1.3	11
139	Zn(OTf) <sub>2</sub> -mediated annulations of <i>N</i> -propargylated tetrahydrocarbolines: divergent synthesis of four distinct alkaloidal scaffolds. <i>Chemical Science</i> , 2019, 10, 5686-5698.	7.4	11
140	Exploring approximate geometries of minimum energy conical intersections by TDDFT calculations. <i>Chemical Physics Letters: X</i> , 2019, 737, 100007.	2.1	11
141	Nontotally symmetric trifurcation of an S <sub>N</sub> 2 reaction pathway. <i>Journal of Computational Chemistry</i> , 2016, 37, 487-493.	3.3	10
142	Ultrafast Nonadiabatic Cascade and Subsequent Photofragmentation of Extreme Ultraviolet Excited Caffeine Molecule. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 6927-6933.	4.6	10
143	Development of a cooled He*(2S <sub>3</sub> ) beam source for measurements of state-resolved collision energy dependence of Penning ionization cross sections: Evidence for a stereospecific attractive well around methyl group in CH <sub>3</sub> CN. <i>Journal of Chemical Physics</i> , 2005, 123, 194308.	3.0	9
144	Temperature dependences of rate coefficients for electron catalyzed mutual neutralization. <i>Journal of Chemical Physics</i> , 2011, 135, 024204.	3.0	9

#	ARTICLE	IF	CITATIONS
145	Isomers of Benzene on Its Global Network of Reaction Pathways. Bulletin of the Chemical Society of Japan, 2015, 88, 1284-1290.	3.2	9
146	On-the-fly molecular dynamics study of the excited-state branching reaction of $\dot{\text{I}}$ -methyl-cis-stilbene. Chemical Physics, 2018, 515, 564-571.	1.9	9
147	Roles of Closed- and Open-Loop Conformations in Large-Scale Structural Transitions of $\alpha$ -Lactate Dehydrogenase. ACS Omega, 2019, 4, 1178-1184.	3.5	9
148	A theoretical study on the alkali metal carboxylate-promoted $\alpha$ -lactide polymerization. Journal of Computational Chemistry, 2020, 41, 2197-2202.	3.3	9
149	Decomposition of alkyl hydroperoxide by a copper(I) complex: insights from density functional theory. Tetrahedron Letters, 2008, 49, 6841-6845.	1.4	8
150	A Theoretical Study on the Mechanism of the Oxidative Deborylation/C-C Coupling Reaction of Borepin Derivatives. Journal of Organic Chemistry, 2019, 84, 1941-1950.	3.2	8
151	Femtosecond electronic relaxation and real-time vibrational dynamics in 2-hydroxychalcone. Physical Chemistry Chemical Physics, 2019, 21, 5344-5358.	2.8	8
152	A reaction route network for methanol decomposition on a Pt(111) surface. Journal of Computational Chemistry, 2021, 42, 2163-2169.	3.3	8
153	Virtual Ligand-Assisted Screening Strategy to Discover Enabling Ligands for Transition Metal Catalysis. ACS Catalysis, 2022, 12, 3752-3766.	11.2	8
154	Theoretical Mechanistic Studies on Methyltrioxorhenium-Catalyzed Olefin Cyclopropanation: Stepwise Transfer of a Terminal Methylene Group. Organometallics, 2014, 33, 3840-3846.	2.3	7
155	Theoretical study of initial reactions of amine (CH <sub>3</sub> ) <sub>3</sub> NH <sup>+</sup> (n = 1, 2, 3) with ozone. Chemical Physics Letters, 2018, 692, 111-116.	2.6	7
156	Excited-State Reactivity of [Mn(im)(CO) <sub>3</sub> (phen)] <sup>+</sup> : A Structural Exploration. Journal of Computational Chemistry, 2019, 40, 72-81.	3.3	7
157	Global Search for Crystal Structures of Carbon under High Pressure. ACS Omega, 2020, 5, 18142-18147.	3.5	7
158	AFIR explorations of transition states of extended unsaturated systems: automatic location of ambimodal transition states. Physical Chemistry Chemical Physics, 2020, 22, 13942-13950.	2.8	7
159	Artificial Force-Induced Reaction Method for Systematic Elucidation of Mechanism and Selectivity in Organometallic Reactions. Topics in Organometallic Chemistry, 2020, , 57-80.	0.7	7
160	Radical Difunctionalization of Gaseous Ethylene Guided by Quantum Chemical Calculations: Selective Incorporation of Two Molecules of Ethylene. ACS Omega, 2021, 6, 33846-33854.	3.5	7
161	Designing two-dimensional dodecagonal boron nitride. CrystEngComm, 2022, 24, 471-474.	2.6	7
162	Two-dimensional Penning ionization electron spectroscopic study on outer characteristics of molecules. Journal of Electron Spectroscopy and Related Phenomena, 2005, 142, 283-293.	1.7	6

#	ARTICLE	IF	CITATIONS
163	Probing anisotropic interaction potentials of unsaturated hydrocarbons with He*(2S3) metastable atom: Attractive-site preference of $\sigma$ -direction in C <sub>2</sub> H <sub>2</sub> and $\pi$ -direction in C <sub>2</sub> H <sub>4</sub> . Journal of Chemical Physics, 2006, 124, 104308.	3.0	6
164	Theoretical Proton Affinity and Fluoride Affinity of Nerve Agent VX. Journal of Physical Chemistry A, 2010, 114, 13189-13197.	2.5	6
165	Direct Pathway for Water–Gas Shift Reaction in Gas Phase. Chemistry Letters, 2014, 43, 193-195.	1.3	6
166	Mechanisms for the Breakdown of Halomethanes through Reactions with Ground-State Cyano Radicals. ChemPhysChem, 2015, 16, 181-190.	2.1	6
167	Multistructural microiteration technique for geometry optimization and reaction path calculation in large systems. Journal of Computational Chemistry, 2017, 38, 2213-2221.	3.3	6
168	Ineffective OH Pinning of the Flipping Dynamics of a Spherical Guest within a Tight-Fitting Tube. Angewandte Chemie - International Edition, 2020, 59, 14570-14576.	13.8	6
169	Combined Graph/Relational Database Management System for Calculated Chemical Reaction Pathway Data. Journal of Chemical Information and Modeling, 2021, 61, 554-559.	5.4	6
170	Leveraging algorithmic search in quantum chemical reaction path finding. Physical Chemistry Chemical Physics, 2022, 24, 10305-10310.	2.8	6
171	Orbital Energy-Based Reaction Analysis of S <sub>N</sub> 2 Reactions. Computation, 2016, 4, 23.	2.0	5
172	Designing the Backbone of Hexasilabenzene Derivatives with a High Unimolecular Kinetic Stability. Chemistry - A European Journal, 2018, 24, 12264-12268.	3.3	5
173	Observation of Borane–Olefin Proximity Interaction Governing the Structure and Reactivity of Boron-Containing Macrocycles. Angewandte Chemie, 2021, 133, 14751-14756.	2.0	5
174	Phonon transport probed at carbon nanotube yarn/sheet boundaries by ultrafast structural dynamics. Carbon, 2020, 170, 165-173.	10.3	5
175	Antraquinodimethane Ring-Flip in Sterically Congested Alkenes: Isolation of Isomer and Elucidation of Intermediate through Experimental and Theoretical Approach. Bulletin of the Chemical Society of Japan, 2022, 95, 38-46.	3.2	5
176	Enhancement of the mechanical and thermal transport properties of carbon nanotube yarns by boundary structure modulation. Nanotechnology, 2022, 33, 235707.	2.6	5
177	Anisotropic Interaction and Stereoreactivity in a Chemi-Ionization Process of OCS by Collision with He*(2S3) Metastable Atoms. Journal of Physical Chemistry A, 2006, 110, 11010-11017.	2.5	4
178	Complete active space second order perturbation theory (CASPT2) study of N(2D) + H <sub>2</sub> O reaction paths on D1 and D0 potential energy surfaces: Direct and roaming pathways. Journal of Chemical Physics, 2014, 141, 154303.	3.0	4
179	Theoretical insight into the wavelength-dependent photodissociation mechanism of nitric acid. Physical Chemistry Chemical Physics, 2016, 18, 24582-24590.	2.8	4
180	Exploring potential crossing seams in periodic systems: Intersystem crossing pathways in the benzene crystal. Journal of Chemical Physics, 2018, 149, 072329.	3.0	4

#	ARTICLE	IF	CITATIONS
181	Computational searches for crystal structures of dioxides of group 14 elements (CO <sub>2</sub> ), Tj ETQq1 1 0.784314 rgBT /Overfoc	3.6	4
182	Ineffective OH Pinning of the Flipping Dynamics of a Spherical Guest within a Tight-Fitting Tube. Angewandte Chemie, 2020, 132, 14678-14684.	2.0	4
183	Selecting molecules with diverse structures and properties by maximizing submodular functions of descriptors learned with graph neural networks. Scientific Reports, 2022, 12, 1124.	3.3	4
184	Determination of outer shape of molecular orbitals based on two-dimensional Penning ionization electron spectroscopy for N <sub>2</sub> and CO by He*23S. Chemical Physics Letters, 2004, 391, 366-373.	2.6	3
185	Global Mapping of Small Carbon Clusters Using the Scaled Hypersphere Search Method. AIP Conference Proceedings, 2006, , .	0.4	3
186	Fragmentation network of doubly charged methionine: Interpretation using graph theory. Journal of Chemical Physics, 2016, 145, 094302.	3.0	3
187	Transition-Metal-Free Boryl Substitution Using Silylboranes and Alkoxy Bases. Synlett, 2017, 28, 1258-1267.	1.8	3
188	Synthesis of a plasmenylethanolamine. Bioscience, Biotechnology and Biochemistry, 2021, 85, 1383-1389.	1.3	3
189	Pincer-Type Phosphorus Compounds With Boryl-Pendant And Application In Catalytic H <sub>2</sub> Generation From Ammonia-Borane: A Theoretical Study. ChemCatChem, 2021, 13, 3925-3929.	3.7	3
190	Mechanism of 2,6-Dichloro-4,4'-bipyridine-Catalyzed Diboration of Pyrazines Involving a Bipyridine-Stabilized Boryl Radical. Bulletin of the Chemical Society of Japan, 2021, 94, 1894-1902.	3.2	3
191	Automated Exploration of Chemical Reaction Pathways. Molecular Science, 2011, 5, A0042-A0042.	0.2	2
192	Exploring Pathways of Photoaddition Reactions by Artificial Force Induced Reaction Method: A Case Study on the PaternÅ-BÅchi Reaction. Zeitschrift Fur Physikalische Chemie, 0, , 130617035227002.	2.8	2
193	Response to "Comment on "Analyses of bifurcation of reaction pathways on a global reaction route map: A case study of gold cluster Au <sub>5</sub> " [J. Chem. Phys. 143, 177101 (2015)]. Journal of Chemical Physics, 2015, 143, 177102.	3.0	2
194	Resolving the excited state relaxation dynamics of guanosine monomers and hydrogen-bonded homodimers in chloroform solution. Chemical Physics, 2018, 515, 480-492.	1.9	2
195	Structural and Electronic Properties, Isomerization, and NO Dissociation Reactions on Au, Ag, Cu Clusters. Journal of Computer Chemistry Japan, 2019, 18, 64-69.	0.1	2
196	A Systematic Study on Bond Activation Energies of NO, N <sub>2</sub> , and O <sub>2</sub> on Hexamers of Eight Transition Metals. ChemCatChem, 2019, 11, 1346-1353.	3.7	2
197	Understanding the Acetalization Reaction Based on its Reaction Path Network. ChemSystemsChem, 2020, 2, e1900022.	2.6	2
198	Non-adiabatic dynamic of atmospheric unimolecular photochemical reactions of 4,4-difluoro-2-crotonaldehyde using TD-DFT and TSH approaches. International Journal of Quantum Chemistry, 2021, 121, e26663.	2.0	2

#	ARTICLE	IF	CITATIONS
199	A Dataset of Computational Reaction Barriers for the Claisen Rearrangement: Chemical and Numerical Analysis. <i>Molecular Informatics</i> , 2022, 41, e2100216.	2.5	2
200	Automated Search for Chemical Reaction Pathways by the Artificial Force Induced Reaction Method: Toward Practical Applications in Synthetic Organic Chemistry. <i>Yuki Gosei Kagaku Kyokaishi/Journal of Synthetic Organic Chemistry</i> , 2014, 72, 567-579.	0.1	2
201	Pt(II)-Chiral Diene-Catalyzed Enantioselective Formal [4+2] Cycloaddition Initiated by C-C Bond Cleavage and Elucidation of a Pt(II)/(IV) Cycle by DFT Calculations. <i>Organic Chemistry Frontiers</i> , 0, , .	4.5	2
202	Kinetic Analysis of a Reaction Path Network Including Ambimodal Transition States: A Case Study of an Intramolecular Diels-Alder Reaction. <i>Journal of Chemical Theory and Computation</i> , 2022, 18, 1663-1671.	5.3	2
203	Designing transformer oil immersion cooling servers for machine learning and first principle calculations. <i>PLoS ONE</i> , 2022, 17, e0266880.	2.5	2
204	Inside Cover: Photochemistry of Methyl Ethyl Ketone: Quantum Yields and $S_1/S_0$ -Diradical Mechanism of Photodissociation ( <i>ChemPhysChem</i> 18/2010). <i>ChemPhysChem</i> , 2010, 11, 3774-3774.	2.1	1
205	Mining hydroformylation in complex reaction network via graph theory. <i>RSC Advances</i> , 2021, 11, 23235-23240.	3.6	1
206	Carboxylation of a Palladacycle Formed via $C(sp^3)H$ Activation: Theory-Driven Reaction Design. <i>Chemistry - an Asian Journal</i> , 2021, 16, 4072-4080.	3.3	1
207	Migrations and Catalytic Action of Water Molecules in the Ionized Formamide- $(H_2O)_2$ Cluster. <i>Journal of Physical Chemistry A</i> , 2020, 124, 2802-2807.	2.5	0
208	Synthesis of Difluoroglycine Derivatives from Amines, Difluorocarbene, and $CO_2$ : Computational Design, Scope, and Applications. <i>Chemistry - A European Journal</i> , 2021, 27, 9965-9966.	3.3	0
209	Lecture Tour upon Receiving the 12th Lectureship Award MBLA. <i>Yuki Gosei Kagaku Kyokaishi/Journal of Synthetic Organic Chemistry</i> , 2017, 75, 367-374.	0.1	0
210	Multistructural Microiteration Combined with QM/MM-ONIOM Electrostatic Embedding. <i>Physical Chemistry Chemical Physics</i> , 0, , .	2.8	0