

# Tao Yang

## List of Publications by Year in descending order

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151  
papers

4,970  
citations

81743

39  
h-index

106150

65  
g-index

155  
all docs

155  
docs citations

155  
times ranked

2373  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental Investigation on the Formation of Carbon-Bearing Molecules in the Interstellar Medium via Neutral-Neutral Reactions. <i>Chemical Reviews</i> , 2002, 102, 1309-1358.	23.0	356
2	A Combined Experimental and Theoretical Study on the Formation of the Amino Acid Glycine (NH <sub>2</sub> CH <sub>2</sub> COOH) and Its Isomer (CH <sub>3</sub> NHCOOH) in Extraterrestrial Ices. <i>Astrophysical Journal</i> , 2005, 626, 940-952.	1.6	206
3	Low temperature formation of naphthalene and its role in the synthesis of PAHs (Polycyclic Aromatic) Tj ETQq1 1 0.784314 rgBT /Over United States of America, 2012, 109, 53-58.	3.3	192
4	Untangling the formation of the cyclic carbon trioxide isomer in low temperature carbon dioxide ices. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 735.	1.3	156
5	Hydrogen Abstraction/Acetylene Addition Revealed. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 7740-7744.	7.2	132
6	Formation of benzene in the interstellar medium. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 452-457.	3.3	131
7	Formation Mechanisms of Naphthalene and Indene: From the Interstellar Medium to Combustion Flames. <i>Journal of Physical Chemistry A</i> , 2017, 121, 901-926.	1.1	130
8	Formation of Hydrogen, Oxygen, and Hydrogen Peroxide in Electron-Irradiated Crystalline Water Ice. <i>Astrophysical Journal</i> , 2006, 639, 534-548.	1.6	128
9	Untangling the chemical evolution of Titan's atmosphere and surface from homogeneous to heterogeneous chemistry. <i>Faraday Discussions</i> , 2010, 147, 429.	1.6	118
10	Reaction Dynamics in Astrochemistry: Low-Temperature Pathways to Polycyclic Aromatic Hydrocarbons in the Interstellar Medium. <i>Annual Review of Physical Chemistry</i> , 2015, 66, 43-67.	4.8	109
11	Reaction dynamics of carbon-bearing radicals in circumstellar envelopes of carbon stars. <i>Faraday Discussions</i> , 2006, 133, 245.	1.6	103
12	Application of Reflectron Time-of-Flight Mass Spectroscopy in the Analysis of Astrophysically Relevant Ices Exposed to Ionization Radiation: Methane (CH <sub>4</sub> ) and D <sub>4</sub> -Methane (CD <sub>4</sub> ) as a Case Study. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1965-1971.	2.1	102
13	A study of interstellar aldehydes and enols as tracers of a cosmic ray-driven nonequilibrium synthesis of complex organic molecules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 7727-7732.	3.3	99
14	A combined crossed molecular beam and ab initio investigation of C <sub>2</sub> and C <sub>3</sub> elementary reactions with unsaturated hydrocarbons pathways to hydrogen deficient hydrocarbon radicals in combustion flames. <i>Faraday Discussions</i> , 2001, 119, 51-66.	1.6	91
15	The reactivity of ground-state carbon atoms with unsaturated hydrocarbons in combustion flames and in the interstellar medium. <i>International Reviews in Physical Chemistry</i> , 2002, 21, 307-356.	0.9	81
16	A VUV Photoionization Study of the Formation of the Indene Molecule and Its Isomers. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 1731-1735.	2.1	79
17	Temperature Dependence of the Formation of Hydrogen, Oxygen, and Hydrogen Peroxide in Electron-Irradiated Crystalline Water Ice. <i>Astrophysical Journal</i> , 2006, 648, 753-761.	1.6	72
18	A photoionization mass spectroscopic study on the formation of phosphanes in low temperature phosphine ices. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 27281-27291.	1.3	72

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19	Low-temperature formation of polycyclic aromatic hydrocarbons in Titan's atmosphere. <i>Nature Astronomy</i> , 2018, 2, 973-979.	4.2	72
20	Unexpected Chemistry from the Reaction of Naphthyl and Acetylene at Combustion-Like Temperatures. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 5421-5424.	7.2	62
21	Pyrene synthesis in circumstellar envelopes and its role in the formation of 2D nanostructures. <i>Nature Astronomy</i> , 2018, 2, 413-419.	4.2	62
22	Characteristics and diagnostics of an ultrahigh vacuum compatible laser ablation source for crossed molecular beam experiments. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2006, 24, 505-511.	0.9	61
23	Reaction Dynamics of Phenyl Radicals in Extreme Environments: A Crossed Molecular Beam Study. <i>Accounts of Chemical Research</i> , 2009, 42, 290-302.	7.6	61
24	Synthesis of Prebiotic Glycerol in Interstellar Ices. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 195-200.	7.2	60
25	An Aromatic Universe—A Physical Chemistry Perspective. <i>Journal of Physical Chemistry A</i> , 2021, 125, 3826-3840.	1.1	60
26	A crossed beam and ab initio study of the $C_2(X^1\Sigma_g^+ / a^3\hat{u}) + C_2H_2(X^1\Sigma_g^+)$ reactions. <i>Chemical Physics Letters</i> , 2003, 382, 112-119.	1.2	59
27	Molecular mass growth through ring expansion in polycyclic aromatic hydrocarbons via radical-radical reactions. <i>Nature Communications</i> , 2019, 10, 3689.	5.8	59
28	A Combined Crossed Molecular Beam and ab Initio Study of the Reactions $C_2(X^1\hat{g}^+, a^3\hat{u}) + C_2H_4^+ - C_4H_3(X^2A^{\hat{e}}) + H(2S_{1/2})$ . <i>Journal of Physical Chemistry A</i> , 2001, 105, 9813-9818.	1.1	58
29	VUV Photoionization Study of the Formation of the Simplest Polycyclic Aromatic Hydrocarbon: Naphthalene ( $C_{10}H_8$ ). <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 2620-2626.	2.1	57
30	A Theoretical Investigation of the Triplet Carbon Atom $C(3P) +$ Vinyl Radical $C_2H_3(2A^{\hat{e}})$ Reaction and Thermochemistry of $C_3H_n(n = 1-4)$ Species. <i>Journal of Physical Chemistry A</i> , 2001, 105, 3284-3299.	1.1	55
31	AN EXPERIMENTAL AND THEORETICAL STUDY ON THE IONIZATION ENERGIES OF POLYYNES ( $H-(C\hat{c}_jC)_{n-1}-H$ ; $n = 1-9$ ). <i>Astrophysical Journal</i> , 2010, 719, 1884-1889.	1.6	52
32	A VUV photoionization study of the multichannel reaction of phenyl radicals with 1,3-butadiene under combustion relevant conditions. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 341-347.	1.3	49
33	Hydrogen-Abstraction/Acetylene-Addition Exposed. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 14983-14987.	7.2	48
34	HACA's Heritage: A Free-Radical Pathway to Phenanthrene in Circumstellar Envelopes of Asymptotic Giant Branch Stars. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 4515-4519.	7.2	48
35	Design of a modular and versatile interlock system for ultrahigh vacuum machines: A crossed molecular beam setup as a case study. <i>Review of Scientific Instruments</i> , 2006, 77, 034701.	0.6	44
36	Chemistry of Energetically Activated Cumulenes—From Allene ( $H_2C=CCCH_2$ ) to Hexapentaene ( $H_2C=CCCCCH_2$ ). <i>ChemPhysChem</i> , 2008, 9, 350-369.	1.0	42

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37	COSMIC-RAY-MEDIATED FORMATION OF BENZENE ON THE SURFACE OF SATURN'S MOON TITAN. <i>Astrophysical Journal</i> , 2010, 718, 1243-1251.	1.6	42
38	Exploiting Photoionization Reflectron Time-of-Flight Mass Spectrometry to Explore Molecular Mass Growth Processes to Complex Organic Molecules in Interstellar and Solar System Ice Analogs. <i>Accounts of Chemical Research</i> , 2020, 53, 2791-2805.	7.6	42
39	Formation of resonantly stabilised free radicals via the reactions of atomic carbon, dicarbon, and tricarbon with unsaturated hydrocarbons: theory and crossed molecular beams experiments. <i>International Reviews in Physical Chemistry</i> , 2015, 34, 461-514.	0.9	40
40	A vacuum ultraviolet photoionization study on high-temperature decomposition of JP-10 (exo-tetrahydrodicyclopentadiene). <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 15780-15807.	1.3	38
41	Formation of Methylamine and Ethylamine in Extraterrestrial Ices and Their Role as Fundamental Building Blocks of Proteinogenic $\alpha$ -amino Acids. <i>Astrophysical Journal</i> , 2017, 845, 83.	1.6	38
42	On the formation of complex organic molecules in the interstellar medium: untangling the chemical complexity of carbon monoxide-hydrocarbon containing ice analogues exposed to ionizing radiation via a combined infrared and reflectron time-of-flight analysis. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 16949-16980.	1.3	35
43	Combined Experimental and Computational Study on the Unimolecular Decomposition of JP-8 Jet Fuel Surrogates. I. <i>n</i> -Decane ( $C_{10}H_{22}$ ). <i>Journal of Physical Chemistry A</i> , 2017, 121, 1261-1280.	1.1	34
44	Gas-phase synthesis of benzene via the propargyl radical self-reaction. <i>Science Advances</i> , 2021, 7, .	4.7	34
45	An interstellar synthesis of phosphorus oxoacids. <i>Nature Communications</i> , 2018, 9, 3851.	5.8	33
46	A Combined Experimental and Computational Study on the Ionization Energies of the Cyclic and Linear C <sub>3</sub> H Isomers. <i>ChemPhysChem</i> , 2007, 8, 1236-1239.	1.0	32
47	A VUV Photoionization Study of the Combustion-Relevant Reaction of the Phenyl Radical (C <sub>6</sub> H <sub>5</sub> ) with Propylene (C <sub>3</sub> H <sub>6</sub> ) in a High Temperature Chemical Reactor. <i>Journal of Physical Chemistry A</i> , 2012, 116, 3541-3546.	1.1	32
48	LOW TEMPERATURE FORMATION OF NITROGEN-SUBSTITUTED POLYCYCLIC AROMATIC HYDROCARBONS (PANHs) - BARRIERLESS ROUTES TO DIHYDRO(iso)QUINOLINES. <i>Astrophysical Journal</i> , 2015, 815, 115.	1.6	32
49	DETERMINATION OF IONIZATION ENERGIES OF C <sub>n</sub> N ( <i>n</i> = 4-12): VACUUM ULTRAVIOLET PHOTOIONIZATION EXPERIMENTS AND THEORETICAL CALCULATIONS. <i>Astrophysical Journal</i> , 2010, 717, 674-682.	1.6	31
50	AN EXPERIMENTAL AND THEORETICAL STUDY OF THE IONIZATION ENERGIES OF SiC <sub>2</sub> H <sub>x</sub> ( <i>x</i> = 0, 1, 2) ISOMERS. <i>Astrophysical Journal</i> , 2012, 761, 178.	1.6	30
51	Synthesis of Polycyclic Aromatic Hydrocarbons by Phenyl Addition-Dehydrocyclization: The Third Way. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 17442-17450.	7.2	30
52	On the formation and the isomer specific detection of methylacetylene (CH <sub>3</sub> CCH), propene (CH <sub>3</sub> CHCH <sub>2</sub> ), cyclopropane (c-C <sub>3</sub> H <sub>6</sub> ), vinylacetylene (CH <sub>2</sub> CHCCH), and 1,3-butadiene (CH <sub>2</sub> CHCHCH <sub>2</sub> ) from interstellar methane ice analogues. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 5378-5393.	1.3	30
53	PROBING THE CARBON-PHOSPHORUS BOND COUPLING IN LOW-TEMPERATURE PHOSPHINE (PH <sub>3</sub> ) - METHANE (CH <sub>4</sub> ) INTERSTELLAR ICE ANALOGUES. <i>Astrophysical Journal</i> , 2016, 819, 97.	1.6	29
54	Low-temperature synthesis of polycyclic aromatic hydrocarbons in Titan's surface ices and on airless bodies. <i>Science Advances</i> , 2019, 5, eaaw5841.	4.7	29

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55	A Theoretical Study of Pyrolysis of <i>exo</i> -Tetrahydrodicyclopentadiene and Its Primary and Secondary Unimolecular Decomposition Products. <i>Journal of Physical Chemistry A</i> , 2018, 122, 4920-4934.	1.1	28
56	Gas phase synthesis of [4]-helicene. <i>Nature Communications</i> , 2019, 10, 1510.	5.8	27
57	Interstellar Formation of Biorelevant Pyruvic Acid (CH <sub>3</sub> COCOOH). <i>CheM</i> , 2020, 6, 3385-3395.	5.8	27
58	Combined Experimental and Computational Study on the Unimolecular Decomposition of JP-8 Jet Fuel Surrogates. II: <i>n</i> -Dodecane (C <sub>12</sub> H <sub>26</sub> ). <i>Journal of Physical Chemistry A</i> , 2017, 121, 1281-1297.	1.1	26
59	Laboratory Studies on the Infrared Absorptions of Hydrogenated Carbon-Silicon Clusters: Directing the Identification of Organometallic SiCH <sub>x</sub> Species toward IRC +10216. <i>Astrophysical Journal</i> , 2005, 630, 1217-1223.	1.6	24
60	Untangling the Formation of Methoxymethanol (CH <sub>3</sub> OCH <sub>2</sub> OH) and Dimethyl Peroxide (CH <sub>3</sub> OOCH <sub>3</sub> ) in Star-forming Regions. <i>Astrophysical Journal</i> , 2019, 881, 156.	1.6	24
61	Directed gas phase formation of silicon dioxide and implications for the formation of interstellar silicates. <i>Nature Communications</i> , 2018, 9, 774.	5.8	23
62	An Experimental and Theoretical Investigation into the Formation of Ketene (H <sub>2</sub> CCO) and Ethynol (HCCOH) in Interstellar Analog Ices. <i>Astrophysical Journal</i> , 2020, 896, 88.	1.6	23
63	ON THE FORMATION OF SILACYCLOPROPENYLIDENE (c-SiC <sub>2</sub> H <sub>2</sub> ) AND ITS ROLE IN THE ORGANOSILICON CHEMISTRY IN THE INTERSTELLAR MEDIUM. <i>Astrophysical Journal</i> , 2013, 770, 33.	1.6	22
64	Gas-Phase Synthesis of the Benzyl Radical (C <sub>6</sub> H <sub>5</sub> CH <sub>2</sub> ). <i>Angewandte Chemie - International Edition</i> , 2014, 53, 4608-4613.	7.2	22
65	A Vacuum Ultraviolet Photoionization Study on the Formation of N-methyl Formamide (HCONHCH <sub>3</sub> ) in Deep Space: A Potential Interstellar Molecule with a Peptide Bond. <i>Astrophysical Journal</i> , 2018, 862, 84.	1.6	22
66	On the ionization energies of C <sub>4</sub> H <sub>3</sub> isomers. <i>Chemical Physics Letters</i> , 2010, 485, 281-285.	1.2	21
67	A combined crossed molecular beam and theoretical investigation of the reaction of the meta-tolyl radical with vinylacetylene toward the formation of methylnaphthalenes. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 21564-21575.	1.3	21
68	Synthesis of Polycyclic Aromatic Hydrocarbons by Phenyl Addition-Dehydrocyclization: The Third Way. <i>Angewandte Chemie</i> , 2019, 131, 17603-17611.	1.6	21
69	Reactivity of the Indenyl Radical (C <sub>9</sub> H <sub>7</sub> ) with Acetylene (C <sub>2</sub> H <sub>2</sub> ) and Vinylacetylene (C <sub>4</sub> H <sub>4</sub> ). <i>ChemPhysChem</i> , 2019, 20, 1437-1447.	1.0	21
70	HACA's Heritage: A Free-Radical Pathway to Phenanthrene in Circumstellar Envelopes of Asymptotic Giant Branch Stars. <i>Angewandte Chemie</i> , 2017, 129, 4586-4590.	1.6	20
71	Gas phase formation of c-SiC <sub>3</sub> molecules in the circumstellar envelope of carbon stars. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 14471-14478.	3.3	19
72	Implications for Extraterrestrial Hydrocarbon Chemistry: Analysis of Acetylene (C <sub>2</sub> H <sub>2</sub> ) and D <sub>2</sub> -acetylene (C <sub>2</sub> D <sub>2</sub> ) Ices Exposed to Ionizing Radiation via Ultraviolet-Visible Spectroscopy, Infrared Spectroscopy, and Reflectron Time-of-flight Mass Spectrometry. <i>Astrophysical Journal</i> , 2020, 889, 3.	1.6	19

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73	An Infrared Spectroscopic Study Toward the Formation of Alkylphosphonic Acids and Their Precursors in Extraterrestrial Environments. <i>Astrophysical Journal, Supplement Series</i> , 2018, 234, 6.	3.0	18
74	A Unified Mechanism on the Formation of Acenes, Helicenes, and Phenacenes in the Gas Phase. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 4051-4058.	7.2	18
75	A chemical dynamics study on the gas phase formation of thioformaldehyde ( $H_2CS$ ) and its thiohydroxycarbene isomer (HCSH). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 22712-22719.	3.3	18
76	Gas-Phase Formation of the Disilavinylidene ( $H_2SiSi$ ) Transient. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 1264-1268.	7.2	17
77	Computational Study on the Unimolecular Decomposition of JP-8 Jet Fuel Surrogates III: Butylbenzene Isomers ( <i>n</i> -, <i>i</i> -, and <i>t</i> - $C_{14}H_{10}$ ). <i>Journal of Physical Chemistry A</i> , 2018, 122, 3980-4001.	1.1	16
78	Formation of the diphenyl molecule in the crossed beam reaction of phenyl radicals with benzene. <i>Journal of Chemical Physics</i> , 2008, 128, 084315.	1.2	15
79	Gas phase formation of phenalene via 10 $\pi$ -aromatic, resonantly stabilized free radical intermediates. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 15381-15388.	1.3	15
80	Combined Experimental and Theoretical Study on the Formation of the Elusive 2-Methyl-1-silacycloprop-2-enylidene Molecule under Single Collision Conditions via Reactions of the Silyliidyne Radical ( $SiH; X^{2+}$ ) with Allene ( $H_2CCCH_2$ ) Tj ETQqO 0 0 rgBT /Overlback 10 Tf450 457 T	1.2	15
81	Origin of alkylphosphonic acids in the interstellar medium. <i>Science Advances</i> , 2019, 5, eaaw4307.	4.7	14
82	Formation of Benzene and Naphthalene through Cyclopentadienyl-Mediated Radical-Radical Reactions. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 208-213.	2.1	14
83	On the formation of ethynylbiphenyl ( $C_{14}D_5H_5$ ; $C_6D_5C_6H_4CCH$ ) isomers in the reaction of D5-phenyl radicals ( $C_6D_5$ ; $X_{2A1}$ ) with phenylacetylene ( $C_6H_5C_2H$ ; $X_{1A1}$ ) under single collision conditions. <i>Chemical Physics Letters</i> , 2014, 595-596, 230-236.	1.2	13
84	Gas-Phase Synthesis of Triphenylene ( $C_{18}H_{12}$ ). <i>ChemPhysChem</i> , 2019, 20, 791-797.	1.0	13
85	Combined Experimental and Computational Study on the Reaction Dynamics of the 1-Propynyl ( $CH_3CC$ )-1,3-Butadiene ( $CH_2CHCH_2$ ) System and the Formation of Toluene under Single Collision Conditions. <i>Journal of Physical Chemistry A</i> , 2019, 123, 4104-4118.	1.1	13
86	Gas phase formation of cyclopentanaphthalene (benzindene) isomers via reactions of 5- and 6-indenyl radicals with vinylacetylene. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 22493-22500.	1.3	13
87	A Free-Radical Pathway to Hydrogenated Phenanthrene in Molecular Clouds-Low Temperature Growth of Polycyclic Aromatic Hydrocarbons. <i>ChemPhysChem</i> , 2017, 18, 1971-1976.	1.0	12
88	A Combined Experimental and Computational Study on the Reaction Dynamics of the 1-Propynyl ( $CH_3CC$ )-Acetylene ( $HCCH$ ) System and the Formation of Methylacetylene ( $CH_3CCCCH$ ). <i>Journal of Physical Chemistry A</i> , 2018, 122, 6663-6672.	1.1	12
89	Formation of nitric oxide and nitrous oxide in electron-irradiated $H_2O/N_2$ ice mixtures-evidence for the existence of free oxygen atoms in interstellar and solar system analog ices. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 15749.	1.3	11
90	Formation of 5- and 6-methyl-1H-indene ( $C_{10}H_{10}$ ) via the reactions of the para-tolyl radical ( $C_6H_4CH_3$ ) with allene ( $H_2CCCH_2$ ) and methylacetylene ( $HCCCH_3$ ) under single collision conditions. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 10510-10519.	1.3	11

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91	Melamine Foam with pH-Responsive Wettability for Fast Oil Absorption and Desorption. <i>Advanced Materials Interfaces</i> , 0, , 2102092.	1.9	11
92	Nonadiabatic reaction dynamics to silicon monosulfide (SiS): A key molecular building block to sulfur-rich interstellar grains. <i>Science Advances</i> , 2021, 7, .	4.7	10
93	Gas-phase synthesis of corannulene – a molecular building block of fullerenes. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 5740-5749.	1.3	10
94	Formation of 2- and 1-methyl-1,4-dihydronaphthalene isomers via the crossed beam reactions of phenyl radicals ( $C_6H_5$ ) with isoprene ( $CH_2=C(CH_3)CH=CH_2$ ) and 1,3-pentadiene ( $CH_2=CHCH=CH_2$ ). <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 530-540.	1.3	9
95	An Interstellar Synthesis of Glycerol Phosphates. <i>Astrophysical Journal Letters</i> , 2020, 899, L3.	3.0	9
96	A combined experimental and computational study on the reaction dynamics of the 1-propynyl radical ( $CH_3CC\equiv X$ ) with ethylene ( $H_2C=CH_2$ ). <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 22308-22319.	1.3	8
97	Laser cooling of the Yb <sup>3+</sup> -doped LuLiF <sub>4</sub> single crystal for optical refrigeration. <i>Journal of Luminescence</i> , 2020, 226, 117472.	1.5	8
98	Reaction Dynamics of the 4-Methylphenyl Radical (p-Tolyl) with 1,2-Butadiene (1-Methylallene): Are Methyl Groups Purely Spectators?. <i>Journal of Physical Chemistry A</i> , 2014, 118, 6181-6190.	1.1	7
99	A crossed molecular beam and ab initio study on the formation of 5- and 6-methyl-1,4-dihydronaphthalene ( $C_{11}H_{12}$ ) via the reaction of meta-tolyl ( $C_7H_7$ ) with 1,3-butadiene ( $C_4H_6$ ). <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 7699-7706.	1.3	7
100	A Combined Experimental and Theoretical Study on the Formation of the 2-Methyl-1-silacycloprop-2-enylidene Molecule via the Crossed Beam Reactions of the Silyldyne Radical ( $SiH\equiv X$ ) with Methylacetylene ( $CH_3C\equiv CH$ ) and D4-Methylacetylene ( $CD_3C\equiv CD$ ). <i>Journal of Physical Chemistry A</i> , 2016, 120, 4872-4883.	1.1	7
101	Hydrogen-Abstraction/Acetylene-Addition Exposed. <i>Angewandte Chemie</i> , 2016, 128, 15207-15211.	1.6	7
102	Gas-Phase Formation of the Disilavinylidene ( $H_2SiSi$ ) Transient. <i>Angewandte Chemie</i> , 2017, 129, 1284-1288.	1.6	7
103	Combined Experimental and Computational Investigation of the Elementary Reaction of Ground State Atomic Carbon ( $C(^3P)$ ) with Pyridine ( $C_5H_5N$ ). <i>Journal of Physical Chemistry A</i> , 2018, 122, 3128-3139.	1.1	7
104	Are Nonadiabatic Reaction Dynamics the Key to Novel Organosilicon Molecules? The Silicon ( $Si(^3P)$ )-Dimethylacetylene ( $C_4H_6(XH)$ ) System as a Case Study. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3340-3347.	2.1	7
105	First detection of the silylgermylene ( $H_3SiGeH$ ) and D4-silylgermylene ( $D_3SiGeD$ ) molecules in low temperature silane-germane ices. <i>Chemical Physics</i> , 2012, 409, 49-60.	0.9	6
106	Reaction dynamics of the 4-methylphenyl radical ( $C_6H_4CH_3$ ; p-tolyl) with isoprene ( $C_5H_8$ ) – formation of dimethyldihydronaphthalenes. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 16805-16814.	1.3	6
107	Probing the Reaction Mechanisms Involved in the Decomposition of Solid 1,3,5-Trinitro-1,3,5-triazinane by Energetic Electrons. <i>Journal of Physical Chemistry A</i> , 2019, 123, 9479-9497.	1.1	6
108	Directed Gas-Phase Formation of the Germaniumsilylene Butterfly Molecule ( $Ge(^1/2-H_2)Si$ ). <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1264-1271.	2.1	6

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109	Gas-Phase Formation of C <sub>5</sub> H <sub>6</sub> Isomers via the Crossed Molecular Beam Reaction of the Methylidyne Radical (CH; X <sup>2</sup> ) with 1,2-Butadiene (CH <sub>3</sub> CHCCH <sub>2</sub> ; X <sup>1</sup> ). Journal of Physical Chemistry A, 2021, 125, 126-138.	1.1	6
110	A vacuum ultraviolet photoionization study on the isomerization, decomposition, and molecular mass growth processes in solid nitromethane (CH <sub>3</sub> NO <sub>2</sub> ). Chemical Physics Letters, 2021, 766, 138343.	1.2	6
111	Infrared spectroscopic detection of the methylsilyl (CH <sub>3</sub> SiH <sub>2</sub> , X <sup>2</sup> ) and the silylmethyl (CH <sub>2</sub> SiH <sub>3</sub> , X <sup>2</sup> ) radicals and their partially deuterated counterparts in low temperature matrices. Chemical Physics, 2005, 315, 41-52.	0.9	5
112	Directed Gas-Phase Formation of the Ethynylsulfidoboron Molecule. Journal of the American Chemical Society, 2014, 136, 8387-8392.	6.6	5
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150	Directed gas-phase preparation of the elusive phosphinosilylydyne (SiPH <sub>2</sub> , X2Aâ€²â€²) and cis/trans phosphinidenesilyl (HSiPH; X2Aâ€²â€²) radicals under single-collision conditions. Physical Chemistry Chemical Physics, 2021, 23, 18506-18516.	1.3	0
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