Liming Wang

List of Publications by Year
in descending order

69 papers	1,768 citations	236612 25 h-index	301761 39 g-index
70 all docs	70 docs citations	70 times ranked	2077 citing authors

#	Article	IF	Citations
1	Atmospheric Oxidation Mechanism of Toluene. Journal of Physical Chemistry A, 2014, 118, 4533-4547.	1.1	105
2	Formation of Highly Oxidized Radicals and Multifunctional Products from the Atmospheric Oxidation of Alkylbenzenes. Environmental Science & Technology, 2017, 51, 8442-8449.	4.6	99
3	Reactivity-based industrial volatile organic compounds emission inventory and its implications for ozone control strategies in China. Atmospheric Environment, 2017, 162, 115-126.	1.9	83
4	Historical industrial emissions of non-methane volatile organic compounds in China for the period of 1980â€“2010. Atmospheric Environment, 2014, 86, 102-112.	1.9	82
5	Evidence of Formation of Bicyclic Species in the Early Stages of Atmospheric Benzene Oxidation. Journal of Physical Chemistry A, 2009, 113, 5385-5396.	1.1	80
6	Atmospheric oxidation mechanism of naphthalene initiated by OH radical. A theoretical study. Physical Chemistry Chemical Physics, 2012, 14, 2645.	1.3	60
7	Atmospheric Oxidation Mechanism of m-Xylene Initiated by OH Radical. Journal of Physical Chemistry A, 2014, 118, 10778-10787.	1.1	58
8	Detection of Nitrous Acid by Cavity Ring-Down Spectroscopy. Environmental Science & Technology, 2000, 34, 4221-4227.	4.6	56
9	New Mechanism for the Atmospheric Oxidation of Dimethyl Sulfide. The Importance of Intramolecular Hydrogen Shift in a CH₃SCH₂OO Radical. Journal of Physical Chemistry A, 2015, 119, 112-117.	1.1	52
10	Atmospheric Oxidation Mechanism of Benzene. Fates of Alkoxy Radical Intermediates and Revised Mechanism. Journal of Physical Chemistry A, 2013, 117, 14163-14168.	1.1	47
11	Mechanistic Studies of the Pyrolysis of 1,3-Butadiene, 1,3-Butadiene-1,1,4,4-d4, 1,2-Butadiene, and 2-Butyne by Supersonic Jet/Photoionization Mass Spectrometry. Journal of Physical Chemistry A, 2005, 109, 2190-2196.	1.1	44
12	Experimental and Master Equation Study of the Kinetics of OH + C2H2:Â Temperature Dependence of the Limiting High Pressure and Pressure Dependent Rate Coefficientsâ€. Journal of Physical Chemistry A, 2007, 111, 4043-4055.	1.1	44
13	Aromatic Photo-oxidation, A New Source of Atmospheric Acidity. Environmental Science & Technology, 2020, 54, 7798-7806.	4.6	43
14	The atmospheric oxidation mechanism of 1,2,4-trimethylbenzene initiated by OH radicals. Physical Chemistry Chemical Physics, 2014, 16, 17908.	1.3	42
15	Atmospheric Oxidation Mechanism of Phenol Initiated by OH Radical. Journal of Physical Chemistry A, 2013, 117, 2358-2364.	1.1	40
16	Ab initio study of reaction of dimethyl sulfoxide (DMSO) with OH radical. Chemical Physics Letters, 2002, 356, 490-496.	1.2	38
17	Effects of Metal Ions and Ligand Functionalization on Hydrogen Storage in Metalâ€“Organic Frameworks by Spillover. Journal of Physical Chemistry C, 2011, 115, 13829-13836.	1.5	34
18	Electrochemical studies of iron meteorites: phosphorus redox chemistry on the early Earth. International Journal of Astrobiology, 2009, 8, 27-36.	0.9	33

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19	Atmospheric Oxidation of Furan and Methyl-Substituted Furans Initiated by Hydroxyl Radicals. Journal of Physical Chemistry A, 2017, 121, 9306-9319.	1.1	33
20	Primary Formation of Highly Oxidized Multifunctional Products in the OH-Initiated Oxidation of Isoprene: A Combined Theoretical and Experimental Study. Environmental Science & Technology, 2018, 52, 12255-12264.	4.6	33
21	Addition complexes of dimethyl sulfide (DMS) and OH radical and their reactions with O 2 by ab initio and density functional theory. Computational and Theoretical Chemistry, 2001, 543, 167-175.	1.5	32
22	Optimizing the Electronic Structure of Ordered Ptâ€“Coâ€“Ti Ternary Intermetallic Catalyst to Boost Acidic Oxygen Reduction. ACS Catalysis, 2022, 12, 7571-7578.	5.5	31
23	Clusters of Hydrated Methane Sulfonic Acid CH3SO3HÂ·(H2O)n(n= 1â^'5):Â A Theoretical Study. Journal of Physical Chemistry A, 2007, 111, 3642-3651.	1.1	30
24	Ab initio calculation on thermochemistry of CH3SOxH (x=1â€“3) and H2SOy (y=2,3). Computational and Theoretical Chemistry, 2002, 581, 129-138.	1.5	27
25	Atmospheric Oxidation Mechanism of Furfural Initiated by Hydroxyl Radicals. Journal of Physical Chemistry A, 2017, 121, 3247-3253.	1.1	27
26	Cavity Ring-Down Spectroscopy of Ambient NO2with Quantification and Elimination of Interferences. Environmental Science & Technology, 2006, 40, 7868-7873.	4.6	26
27	The atmospheric oxidation of dimethyl, diethyl, and diisopropyl ethers. The role of the intramolecular hydrogen shift in peroxy radicals. Physical Chemistry Chemical Physics, 2016, 18, 7707-7714.	1.3	24
28	Highly Unsaturated Hydrogenated Silicon Clusters, SinHx(n= 3â^'10,x= 0â^'3), in Flash Pyrolysis of Silane and Disilane. Journal of Physical Chemistry A, 2002, 106, 5081-5087.	1.1	23
29	Theoretical Study on the Thermochemistry of Chlorinated and Fluorinated Germanes and Their Radical Fragments. Journal of Physical Chemistry A, 2004, 108, 10346-10353.	1.1	22
30	Atmospheric oxidation mechanism of chlorobenzene. Chemosphere, 2014, 111, 537-544.	4.2	22
31	Halogenated silanes, radicals, and cations: Theoretical predictions on ionization energies, structures and potential energy surfaces of cations, proton affinities, and enthalpies of formation. International Journal of Mass Spectrometry, 2008, 276, 56-76.	0.7	21
32	Mechanism of Gas-Phase Ozonolysis of Î²-Myrcene in the Atmosphere. Journal of Physical Chemistry A, 2018, 122, 3013-3020.	1.1	21
33	Atmospheric oxidation mechanisms of polychlorinated dibenzo-p-dioxins are different from those of benzene and dibenzofuran: A theoretical prediction. Chemosphere, 2011, 82, 782-785.	4.2	20
34	Atmospheric Oxidation Mechanism of 2,7-Dimethylnaphthalene is Different from That of Monocyclic Aromatic Benzenes. A Theoretical Study. Journal of Physical Chemistry A, 2013, 117, 160-168.	1.1	20
35	A Gaussian-3X Prediction on the Enthalpies of Formation of Chlorinated Phenols and Dibenzo-p-dioxins. Journal of Physical Chemistry A, 2008, 112, 1832-1840.	1.1	19
36	The gas-phase thermochemistry of SeFn, SeFn+, and SeFnâ^' (n=1â€“6) from Gaussian-3 calculations. International Journal of Mass Spectrometry, 2007, 264, 84-91.	0.7	17

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37	The oxidation mechanism of polychlorinated dibenzo-p-dioxins under the atmospheric conditions â€“ A theoretical study. Chemosphere, 2012, 89, 950-956.	4.2	17
38	The atmospheric oxidation mechanism of 2-methylnaphthalene. Physical Chemistry Chemical Physics, 2015, 17, 23413-23422.	1.3	17
39	Atmospheric oxidation of gaseous anthracene and phenanthrene initiated by OH radicals. Atmospheric Environment, 2020, 234, 117587.	1.9	17
40	Cations of halogenated methanes: adiabatic ionization energies, potential energy surfaces, and ion fragment appearance energies. Structural Chemistry, 2009, 20, 461-479.	1.0	16
41	The Atmospheric Oxidation Mechanism of Benzyl Alcohol Initiated by OH Radicals: The Addition Channels. ChemPhysChem, 2015, 16, 1542-1550.	1.0	14
42	Mechanism of gas-phase ozonolysis of sabinene in the atmosphere. Physical Chemistry Chemical Physics, 2017, 19, 24209-24218.	1.3	14
43	Biomass waste-derived nitrogen-rich hierarchical porous carbon offering superior capacitive behavior in an environmentally friendly aqueous MgSO4 electrolyte. Journal of Colloid and Interface Science, 2019, 537, 475-485.	5.0	14
44	Atmospheric oxidation mechansim of polychlorinated biphenyls (PCBs) initiated by OH radicals. Chemosphere, 2020, 240, 124756.	4.2	14
45	Kinetics and mechanism of syringic acid degradation initiated by hydroxyl radical and sulphate radical in the aqueous phase. Chemosphere, 2020, 256, 126997.	4.2	14
46	Detection of Sulfur Dioxide by Cavity Ring-Down Spectroscopy. Environmental Science & Technology, 2011, 45, 1926-1931.	4.6	12
47	Atmospheric oxidation mechanism of acenaphthene initiated by OH radicals. Atmospheric Environment, 2020, 243, 117870.	1.9	11
48	Oxidation mechanisms of dimethyl selenide and selenoxide in the atmosphere initiated by OH radical. A theoretical study. Chemical Physics, 2011, 382, 98-103.	0.9	10
49	Formation and Decomposition of Phenylvinylperoxy Radicals in the Reaction: C6H5C2H2+O2. ChemPhysChem, 2004, 5, 1231-1234.	1.0	9
50	Kinetics of phenyl radical reactions with propane,n-butane,n-hexane, andn-octane: Reactivity of C6H5 toward the secondary C?H bond of alkanes. International Journal of Chemical Kinetics, 2004, 36, 49-56.	1.0	9
51	Quantum Chemistry Study on Cation Structures of Fluorinated and Chlorinated Germanes and Their Radicals. Journal of Physical Chemistry A, 2008, 112, 3454-3465.	1.1	9
52	The Enthalpies of Formation for Polychlorinated Dibenzofurans with Use of G3XMP2 Model Chemistry and Density Functional Theory. Journal of Physical Chemistry A, 2009, 113, 238-245.	1.1	9
53	Gibbs energies of formation of chlorinated benzoic acids and benzoates and application to their reductive dechlorination. Computational and Theoretical Chemistry, 2010, 960, 31-39.	1.5	9
54	Ozonolysis of 3-carene in the atmosphere. Formation mechanism of hydroxyl radical and secondary ozonides. Physical Chemistry Chemical Physics, 2019, 21, 8081-8091.	1.3	8

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55	Theoretical Studies on the Thermochemistry of Stable Closed-Shell C1 and C2 Brominated Hydrocarbons. Journal of Physical Chemistry A, 2008, 112, 4951-4957.	1.1	7
56	Bond dissociation enthalpies in chlorinated benzenes and phenols and enthalpies of formation of their free radicals: A Gaussian-4 prediction. International Journal of Chemical Kinetics, 2011, 43, 62-69.	1.0	7
57	The oxidation mechanism of gas-phase ozonolysis of limonene in the atmosphere. Physical Chemistry Chemical Physics, 2021, 23, 9294-9303.	1.3	7
58	Atmospheric Oxidation Mechanism of Sabinene Initiated by the Hydroxyl Radicals. Journal of Physical Chemistry A, 2018, 122, 8783-8793.	1.1	6
59	Imidazolium ionic liquids as potential persistent pollutants in aqueous environments: Indirect photochemical degradation kinetics and mechanism. Environmental Research, 2022, 211, 113031.	3.7	6
60	The enthalpies of formation of brominated benzenes and phenols: A theoretical prediction. Computational and Theoretical Chemistry, 2010, 957, 72-76.	1.5	5
61	Prediction of gas-phase thermodynamic properties for polychlorinated naphthalenes using G3X model chemistry and density functional theory. Chemosphere, 2010, 78, 77-85.	4.2	5
62	Gas-phase ozonolysis of furans, methylfurans, and dimethylfurans in the atmosphere. Physical Chemistry Chemical Physics, 2018, 20, 24735-24743.	1.3	5
63	Potential energy surfaces for protonation of hydrochlorofluoromethanes. Computational and Theoretical Chemistry, 2009, 913, 240-246.	1.5	2
64	Structures and energetics of SiGeHz0,+1, Ge2Hz0,+1, and Si2Hz0,+1: A systematic theoretical study. International Journal of Mass Spectrometry, 2012, 311, 56-63.	0.7	2
65	Preparation of mullite whiskers from kaolin via the addition of tribasic calcium phosphate. International Journal of Applied Ceramic Technology, 2017, 14, 1206-1212.	1.1	2
66	Photochemical transformation of pyridinium ionic liquids in aqueous phase: Kinetics, products and mechanism. Journal of Environmental Chemical Engineering, 2021, 9, 106638.	3.3	2
67	Mechanism and fate of cyclohexadienyl radicals with O2 in the atmosphere. A theoretical study. Chemical Physics Letters, 2018, 707, 172-177.	1.2	1
68	Theoretical Study on the Thermochemistry of Chlorinated and Fluorinated Germanes and Their Radical Fragments. ChemInform, 2005, 36, no.	0.1	0
69	Computational Study on the Reaction of Î²-Hydroxyethylperoxy Radical with HO₂ and Effects of Water Vapor. Journal of Physical Chemistry A, 2022, 126, 2234-2243.	1.1	0