

Hydroxyl Radical Recycling in Isoprene Oxidation Driven by Hydrogen Tunneling: The Upgraded LIM1 Mechanism

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Citation Report

#	ARTICLE	IF	CITATIONS
4	Wavelength-dependent isotope fractionation in visible light O ₃ photolysis and atmospheric implications. <i>Geophysical Research Letters</i> , 2015, 42, 8711-8718.	1.5	7
5	Observation of isoprene hydroxynitrates in the southeastern United States and implications for the fate of NO _x . <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 11257-11272.	1.9	75
6	The MCM v3.3.1 degradation scheme for isoprene. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 11433-11459.	1.9	350
7	How consistent are top-down hydrocarbon emissions based on formaldehyde observations from GOME-2 and OMI?. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 11861-11884.	1.9	77
8	Seasonal changes in the tropospheric carbon monoxide profile over the remote Southern Hemisphere evaluated using multi-model simulations and aircraft observations. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 3217-3239.	1.9	14
9	Quantifying sources and sinks of reactive gases in the lower atmosphere using airborne flux observations. <i>Geophysical Research Letters</i> , 2015, 42, 8231-8240.	1.5	53
10	Direct observation and kinetics of a hydroperoxyalkyl radical (QOOH). <i>Science</i> , 2015, 347, 643-646.	6.0	130
11	Fast (<i>E</i>) ⁺ (<i>Z</i>) Isomerization Mechanisms of Substituted Allyloxy Radicals in Isoprene Oxidation. <i>Journal of Physical Chemistry A</i> , 2015, 119, 7270-7276.	1.1	9
12	A rational strategy for the realization of chain-growth supramolecular polymerization. <i>Science</i> , 2015, 347, 646-651.	6.0	518
13	Formation of Low Volatility Organic Compounds and Secondary Organic Aerosol from Isoprene Hydroxyhydroperoxide Low-NO Oxidation. <i>Environmental Science & Technology</i> , 2015, 49, 10330-10339.	4.6	172
14	The global budgets of organic hydroperoxides for present and pre-industrial scenarios. <i>Atmospheric Environment</i> , 2015, 110, 65-74.	1.9	21
15	Retrievals of formaldehyde from ground-based FTIR and MAX-DOAS observations at the Jungfraujoch station and comparisons with GEOS-Chem and IMAGES model simulations. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 1733-1756.	1.2	38
16	Theoretical Chemical Kinetics in Tropospheric Chemistry: Methodologies and Applications. <i>Chemical Reviews</i> , 2015, 115, 4063-4114.	23.0	164
17	Atmospheric Vinyl Alcohol to Acetaldehyde Tautomerization Revisited. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4005-4011.	2.1	19
18	Isoprene NO ₃ Oxidation Products from the RO ₂ + HO ₂ Pathway. <i>Journal of Physical Chemistry A</i> , 2015, 119, 10158-10171.	1.1	86
19	Environmental Implications of Hydroxyl Radicals ([•] OH). <i>Chemical Reviews</i> , 2015, 115, 13051-13092.	23.0	998
21	Investigation of potential interferences in the detection of atmospheric RO ₂ radicals by laser-induced fluorescence under dark conditions. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 1431-1447.	1.2	49
26	Observational constraints on glyoxal production from isoprene oxidation and its contribution to organic aerosol over the Southeast United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 9849-9861.	1.2	48

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27	Cost-Effective Implementation of Multiconformer Transition State Theory for Peroxy Radical Hydrogen Shift Reactions. <i>Journal of Physical Chemistry A</i> , 2016, 120, 10072-10087.	1.1	91
28	A review of stereochemical implications in the generation of secondary organic aerosol from isoprene oxidation. <i>Environmental Sciences: Processes and Impacts</i> , 2016, 18, 1369-1380.	1.7	14
29	Isoprene photochemistry over the Amazon rainforest. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 6125-6130.	3.3	85
30	Measurements of hydroxyl and hydroperoxy radicals during CalNex-CA: Model comparisons and radical budgets. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 4211-4232.	1.2	81
31	Testing Atmospheric Oxidation in an Alabama Forest. <i>Journals of the Atmospheric Sciences</i> , 2016, 73, 4699-4710.	0.6	54
32	Hydrogen shift reactions in four methyl-buten-ol (MBO) peroxy radicals and their impact on the atmosphere. <i>Atmospheric Environment</i> , 2016, 147, 79-87.	1.9	15
33	Ozone sensitivity to isoprene chemistry and emissions and anthropogenic emissions in central California. <i>Atmospheric Environment</i> , 2016, 145, 326-337.	1.9	20
34	The reaction of methyl peroxy and hydroxyl radicals as a major source of atmospheric methanol. <i>Nature Communications</i> , 2016, 7, 13213.	5.8	65
35	The Stability of $\dot{\text{C}}\text{H}$ -Hydroperoxyalkyl Radicals. <i>Chemistry - A European Journal</i> , 2016, 22, 18092-18100.	1.7	24
36	Nine years of global hydrocarbon emissions based on source inversion of OMI formaldehyde observations. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 10133-10158.	1.9	109
37	Global tropospheric hydroxyl distribution, budget and reactivity. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 12477-12493.	1.9	255
38	Why do models overestimate surface ozone in the Southeast United States?. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 13561-13577.	1.9	320
39	Formaldehyde production from isoprene oxidation across NO_x regimes. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 2597-2610.	1.9	124
40	Organic nitrate chemistry and its implications for nitrogen budgets in an isoprene- and monoterpene-rich atmosphere: constraints from aircraft (SEAC ⁴ RS) and ground-based (SOAS) observations in the Southeast US. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 5969-5991.	1.9	173
41	The lifetime of nitrogen oxides in an isoprene-dominated forest. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 7623-7637.	1.9	75
42	Rapid Hydrogen Shift Scrambling in Hydroperoxy-Substituted Organic Peroxy Radicals. <i>Journal of Physical Chemistry A</i> , 2016, 120, 266-275.	1.1	62
43	The atmospheric oxidation of dimethyl, diethyl, and diisopropyl ethers. The role of the intramolecular hydrogen shift in peroxy radicals. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 7707-7714.	1.3	24
44	Environmental effects of ozone depletion and its interactions with climate change: progress report, 2015. <i>Photochemical and Photobiological Sciences</i> , 2016, 15, 141-174.	1.6	48

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45	Reply to "Comment on "When Rate Constants Are Not Enough" Journal of Physical Chemistry A, 2016, 120, 313-317.	1.1	5
46	Theoretically derived mechanisms of HPALD photolysis in isoprene oxidation. Physical Chemistry Chemical Physics, 2017, 19, 9096-9106.	1.3	21
47	Recent Advances in the Chemistry of OH and HO ₂ Radicals in the Atmosphere: Field and Laboratory Measurements. , 2017, , 493-579.		5
48	Atmospheric Oxidation Mechanism of Furfural Initiated by Hydroxyl Radicals. Journal of Physical Chemistry A, 2017, 121, 3247-3253.	1.1	27
49	Isoprene Peroxy Radical Dynamics. Journal of the American Chemical Society, 2017, 139, 5367-5377.	6.6	114
50	Isomerization of Second-Generation Isoprene Peroxy Radicals: Epoxide Formation and Implications for Secondary Organic Aerosol Yields. Environmental Science & Technology, 2017, 51, 4978-4987.	4.6	53
51	OH production from the photolysis of isoprene-derived peroxy radicals: cross-sections, quantum yields and atmospheric implications. Physical Chemistry Chemical Physics, 2017, 19, 2332-2345.	1.3	16
52	Highly Oxygenated Molecules from Atmospheric Autoxidation of Hydrocarbons: A Prominent Challenge for Chemical Kinetics Studies. International Journal of Chemical Kinetics, 2017, 49, 821-831.	1.0	43
53	Barrierless Reactions with Loose Transition States Govern the Yields and Lifetimes of Organic Nitrates Derived from Isoprene. Journal of Physical Chemistry A, 2017, 121, 8306-8321.	1.1	19
54	Infrared and density functional theory studies of isoprene-water complexes in noble gas matrices. Journal of Molecular Spectroscopy, 2017, 341, 27-34.	0.4	3
55	Sources and Long-Term Trends of Ozone Precursors to Asian Pollution. , 2017, , 167-189.		5
56	Atmospheric Oxidation of Furan and Methyl-Substituted Furans Initiated by Hydroxyl Radicals. Journal of Physical Chemistry A, 2017, 121, 9306-9319.	1.1	33
57	Formation of Highly Oxidized Radicals and Multifunctional Products from the Atmospheric Oxidation of Alkylbenzenes. Environmental Science & Technology, 2017, 51, 8442-8449.	4.6	99
58	Impact of evolving isoprene mechanisms on simulated formaldehyde: An inter-comparison supported by in situ observations from SENEX. Atmospheric Environment, 2017, 164, 325-336.	1.9	33
59	Model simulation of NO ₃ , N ₂ O ₅ and ClNO ₂ at a rural site in Beijing during CAREBeijing-2006. Atmospheric Research, 2017, 196, 97-107.	1.8	35
60	Radical chemistry at a rural site (Wangdu) in the North China Plain: observation and model calculations of OH, HO ₂ and RO ₂ radicals. Atmospheric Chemistry and Physics, 2017, 17, 663-690.	1.9	239
61	Investigation of the α -pinene photooxidation by OH in the atmosphere simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2017, 17, 6631-6650.	1.9	27
62	Glyoxal yield from isoprene oxidation and relation to formaldehyde: chemical mechanism, constraints from SENEX aircraft observations, and interpretation of OMI satellite data. Atmospheric Chemistry and Physics, 2017, 17, 8725-8738.	1.9	72

#	ARTICLE	IF	CITATIONS
63	Theoretical Study of Isoprene Dissociative Photoionization. Chinese Journal of Chemical Physics, 2017, 30, 43-49.	0.6	1
64	Controlled nitric oxide production via $O(^1D) + N_2O$ reactions for use in oxidation flow reactor studies. Atmospheric Measurement Techniques, 2017, 10, 2283-2298.	1.2	42
65	Gas-Phase Reactions of Isoprene and Its Major Oxidation Products. Chemical Reviews, 2018, 118, 3337-3390.	23.0	339
66	Effects of temperature-dependent NO_x emissions on continental ozone production. Atmospheric Chemistry and Physics, 2018, 18, 2601-2614.	1.9	62
67	Perspective on Mechanism Development and Structure-Activity Relationships for Gas-Phase Atmospheric Chemistry. International Journal of Chemical Kinetics, 2018, 50, 435-469.	1.0	45
68	The photolysis of $\hat{I}\pm$ -hydroperoxycarbonyls. Physical Chemistry Chemical Physics, 2018, 20, 6970-6979.	1.3	14
70	Decadal changes in summertime reactive oxidized nitrogen and surface ozone over the Southeast United States. Atmospheric Chemistry and Physics, 2018, 18, 2341-2361.	1.9	30
71	Southeast Atmosphere Studies: learning from model-observation syntheses. Atmospheric Chemistry and Physics, 2018, 18, 2615-2651.	1.9	36
72	Hybridization of Nitrogen Determines Hydrogen-Bond Acceptor Strength: Gas-Phase Comparison of Redshifts and Equilibrium Constants. Journal of Physical Chemistry A, 2018, 122, 3899-3908.	1.1	8
73	Efficient and Adaptive Methods for Computing Accurate Potential Surfaces for Quantum Nuclear Effects: Applications to Hydrogen-Transfer Reactions. Journal of Chemical Theory and Computation, 2018, 14, 30-47.	2.3	16
74	Intercomparison of OH and OH reactivity measurements in a high isoprene and low NO environment during the Southern Oxidant and Aerosol Study (SOAS). Atmospheric Environment, 2018, 174, 227-236.	1.9	22
75	Estimation of rate coefficients and branching ratios for gas-phase reactions of OH with aliphatic organic compounds for use in automated mechanism construction. Atmospheric Chemistry and Physics, 2018, 18, 9297-9328.	1.9	48
78	Low-pressure gas chromatography with chemical ionization mass spectrometry for quantification of multifunctional organic compounds in the atmosphere. Atmospheric Measurement Techniques, 2018, 11, 6815-6832.	1.2	23
79	A comprehensive organic nitrate chemistry: insights into the lifetime of atmospheric organic nitrates. Atmospheric Chemistry and Physics, 2018, 18, 15419-15436.	1.9	57
80	Oxidation processes in the eastern Mediterranean atmosphere: evidence from the modelling of HO_x measurements over Cyprus. Atmospheric Chemistry and Physics, 2018, 18, 10825-10847.	1.9	35
82	Evaluation of OH and HO_2 concentrations and their budgets during photooxidation of 2-methyl-3-butene-2-ol (MBO) in the atmospheric simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2018, 18, 11409-11422.	1.9	20
83	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
84	Calculated Hydrogen Shift Rate Constants in Substituted Alkyl Peroxy Radicals. Journal of Physical Chemistry A, 2018, 122, 8665-8673.	1.1	55

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85	Probing the Migration of Free Radicals in Solid and Liquid Media via Cr(VI) Reduction by High-Energy Electron Beam Irradiation. <i>Scientific Reports</i> , 2018, 8, 15196.	1.6	3
86	NDACC harmonized formaldehyde time series from 21 FTIR stations covering a wide range of column abundances. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 5049-5073.	1.2	37
88	Atmospheric Oxidation Mechanism of Sabinene Initiated by the Hydroxyl Radicals. <i>Journal of Physical Chemistry A</i> , 2018, 122, 8783-8793.	1.1	6
89	A steady-state continuous flow chamber for the study of daytime and nighttime chemistry under atmospherically relevant NO levels. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 2537-2551.	1.2	14
91	Optical property variations from a precursor (isoprene) to its atmospheric oxidation products. <i>Atmospheric Environment</i> , 2018, 193, 198-204.	1.9	6
92	Wintertime photochemistry in Beijing: observations of RO ₂ radical concentrations in the North China Plain during the BEST-ONE campaign. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 12391-12411.	1.9	177
94	Kinetics of the Reaction of OH with Isoprene over a Wide Range of Temperature and Pressure Including Direct Observation of Equilibrium with the OH Adducts. <i>Journal of Physical Chemistry A</i> , 2018, 122, 7239-7255.	1.1	16
95	Impact of Short-Term Climate Variability on Volatile Organic Compounds Emissions Assessed Using OMI Satellite Formaldehyde Observations. <i>Geophysical Research Letters</i> , 2018, 45, 8681-8689.	1.5	24
96	Investigation of the oxidation of methyl vinyl ketone (MVK) by OH radicals in the atmospheric simulation chamber SAPHIR. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 8001-8016.	1.9	22
97	Low-volatility compounds contribute significantly to isoprene secondary organic aerosol (SOA) under high-NO ₂ conditions. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 7255-7278.	1.9	46
98	Estimation of rate coefficients and branching ratios for reactions of organic peroxy radicals for use in automated mechanism construction. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 7691-7717.	1.9	70
99	Theoretical investigation on the reaction mechanism and kinetics of a Criegee intermediate with ethylene and acetylene. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 16583-16590.	1.3	9
102	Direct retrieval of isoprene from satellite-based infrared measurements. <i>Nature Communications</i> , 2019, 10, 3811.	5.8	42
103	A new model mechanism for atmospheric oxidation of isoprene: global effects on oxidants, nitrogen oxides, organic products, and secondary organic aerosol. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 9613-9640.	1.9	117
105	The CRI v2.2 reduced degradation scheme for isoprene. <i>Atmospheric Environment</i> , 2019, 212, 172-182.	1.9	29
106	Chemistry and deposition in the Model of Atmospheric composition at Global and Regional scales using Inversion Techniques for Trace gas Emissions (MAGRITTE v1.1) – Part 1: Chemical mechanism. <i>Geoscientific Model Development</i> , 2019, 12, 2307-2356.	1.3	28
107	Experimental budgets of OH, HO ₂ , and RO ₂ radicals and implications for ozone formation in the Pearl River Delta in China 2014. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 7129-7150.	1.9	92
108	The community atmospheric chemistry box model CAABA/MECCA-4.0. <i>Geoscientific Model Development</i> , 2019, 12, 1365-1385.	1.3	54

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109	Adaptive Dimensional Decoupling for Compression of Quantum Nuclear Wave Functions and Efficient Potential Energy Surface Representations through Tensor Network Decomposition. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 2780-2796.	2.3	10
110	Daytime atmospheric oxidation capacity in four Chinese megacities during the photochemically polluted season: a case study based on box model simulation. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 3493-3513.	1.9	145
111	First oxidation products from the reaction of hydroxyl radicals with isoprene for pristine environmental conditions. <i>Communications Chemistry</i> , 2019, 2, .	2.0	43
112	Highly Oxygenated Organic Molecules (HOM) from Gas-Phase Autoxidation Involving Peroxy Radicals: A Key Contributor to Atmospheric Aerosol. <i>Chemical Reviews</i> , 2019, 119, 3472-3509.	23.0	460
113	Investigation of the α -pinene photooxidation by OH in the atmospheric simulation chamber SAPHIR. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 11635-11649.	1.9	17
115	Computational study on the mechanism and kinetics for the reaction between HO ₂ and <i>i</i> -propyl peroxy radical. <i>RSC Advances</i> , 2019, 9, 40437-40444.	1.7	5
116	Intramolecular Hydrogen Shift Chemistry of Hydroperoxy-Substituted Peroxy Radicals. <i>Journal of Physical Chemistry A</i> , 2019, 123, 590-600.	1.1	31
117	Multigenerational Theoretical Study of Isoprene Peroxy Radical α -5-Hydrogen Shift Reactions that Regenerate HO _x Radicals and Produce Highly Oxidized Molecules. <i>Journal of Physical Chemistry A</i> , 2019, 123, 906-919.	1.1	10
118	The Importance of Peroxy Radical Hydrogen-Shift Reactions in Atmospheric Isoprene Oxidation. <i>Journal of Physical Chemistry A</i> , 2019, 123, 920-932.	1.1	66
120	Satellite isoprene retrievals constrain emissions and atmospheric oxidation. <i>Nature</i> , 2020, 585, 225-233.	13.7	53
121	Atmospheric Autoxidation of Amines. <i>Environmental Science & Technology</i> , 2020, 54, 11087-11099.	4.6	33
122	A computational investigation on the HO ₂ and isopropyl peroxy radical reaction: Mechanism and kinetics. <i>Chemical Physics Letters</i> , 2020, 749, 137442.	1.2	4
123	Investigation of the Dynamism of Nanosized SOA Particle Formation in Indoor Air by a Scanning Mobility Particle Sizer and Proton-Transfer-Reaction Mass Spectrometry. <i>Molecules</i> , 2020, 25, 2202.	1.7	4
124	Impacts of precursors on peroxyacetyl nitrate (PAN) and relative formation of PAN to ozone in a southwestern megacity of China. <i>Atmospheric Environment</i> , 2020, 231, 117542.	1.9	19
126	On the Theoretical Determination of Photolysis Properties for Atmospheric Volatile Organic Compounds. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 5418-5425.	2.1	25
128	Importance of isomerization reactions for OH radical regeneration from the photo-oxidation of isoprene investigated in the atmospheric simulation chamber SAPHIR. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 3333-3355.	1.9	44
129	Double Bonds Are Key to Fast Unimolecular Reactivity in First-Generation Monoterpene Hydroxy Peroxy Radicals. <i>Journal of Physical Chemistry A</i> , 2020, 124, 2885-2896.	1.1	37
130	Implementation of a chemical background method for atmospheric OH measurements by laser-induced fluorescence: characterisation and observations from the UK and China. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 3119-3146.	1.2	18

#	ARTICLE	IF	CITATIONS
131	The Chemistry Mechanism in the Community Earth System Model Version 2 (CESM2). <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001882.	1.3	189
132	No Evidence for a Significant Impact of Heterogeneous Chemistry on Radical Concentrations in the North China Plain in Summer 2014. <i>Environmental Science & Technology</i> , 2020, 54, 5973-5979.	4.6	67
133	Can Isoprene Oxidation Explain High Concentrations of Atmospheric Formic and Acetic Acid over Forests?. <i>ACS Earth and Space Chemistry</i> , 2020, 4, 730-740.	1.2	22
134	Comprehensive isoprene and terpene gas-phase chemistry improves simulated surface ozone in the southeastern US. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 3739-3776.	1.9	47
135	Hydroxyl, hydroperoxyl free radicals determination methods in atmosphere and troposphere. <i>Journal of Environmental Sciences</i> , 2021, 99, 324-335.	3.2	15
136	Changes to simulated global atmospheric composition resulting from recent revisions to isoprene oxidation chemistry. <i>Atmospheric Environment</i> , 2021, 244, 117914.	1.9	13
137	Unimolecular Reactions Following Indoor and Outdoor Limonene Ozonolysis. <i>Journal of Physical Chemistry A</i> , 2021, 125, 669-680.	1.1	26
138	Low-NO atmospheric oxidation pathways in a polluted megacity. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 1613-1625.	1.9	24
139	Evaluating the sensitivity of radical chemistry and ozone formation to ambient VOCs and NO _x in Beijing. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 2125-2147.	1.9	64
140	Atmospheric Chemistry of Allylic Radicals from Isoprene: A Successive Cyclization-Driven Autoxidation Mechanism. <i>Environmental Science & Technology</i> , 2021, 55, 4399-4409.	4.6	20
141	Characterization of a chemical modulation reactor (CMR) for the measurement of atmospheric concentrations of hydroxyl radicals with a laser-induced fluorescence instrument. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 1851-1877.	1.2	8
142	Nonadiabatic Kinetics in the Intermediate Coupling Regime: Comparing Molecular Dynamics to an Energy-Grained Master Equation. <i>Journal of Physical Chemistry A</i> , 2021, 125, 3473-3488.	1.1	5
143	Rapid production of highly oxidized molecules in isoprene aerosol via peroxy and alkoxy radical isomerization pathways in low and high NO _x environments: Combined laboratory, computational and field studies. <i>Science of the Total Environment</i> , 2021, 775, 145592.	3.9	11
145	Measurements of Total OH Reactivity During CalNex ² . <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD032988.	1.2	5
146	Molecular composition and volatility of multi-generation products formed from isoprene oxidation by nitrate radical. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 10799-10824.	1.9	19
147	Watching a hydroperoxyalkyl radical (â€œQOOH) dissociate. <i>Science</i> , 2021, 373, 679-682.	6.0	31
148	Improvements to the representation of BVOC chemistryâ€™climate interactions in UKCA (v11.5) with the CRI-StratA2 mechanism: incorporation and evaluation. <i>Geoscientific Model Development</i> , 2021, 14, 5239-5268.	1.3	12
150	Theoretical and experimental study of peroxy and alkoxy radicals in the NO ₃ -initiated oxidation of isoprene. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 5496-5515.	1.3	22

#	ARTICLE	IF	CITATIONS
151	Recent advances in understanding secondary organic aerosol: Implications for global climate forcing. <i>Reviews of Geophysics</i> , 2017, 55, 509-559.	9.0	548
152	H ₂ O ₂ migration in peroxy radicals under atmospheric conditions. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 7429-7458.	1.9	67
153	OH and HO ₂ radical chemistry in a midlatitude forest: measurements and model comparisons. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 9209-9230.	1.9	17
159	Description and evaluation of a detailed gas-phase chemistry scheme in the TM5-MP global chemistry transport model (r112). <i>Geoscientific Model Development</i> , 2020, 13, 5507-5548.	1.3	11
161	Atmospheric photo-oxidation of myrcene: OH reaction rate constant, gas-phase oxidation products and radical budgets. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 16067-16091.	1.9	4
162	Photooxidation of pinonaldehyde at ambient conditions investigated in the atmospheric simulation chamber SAPHIR. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 13701-13719.	1.9	6
163	Chemistry of Functionalized Reactive Organic Intermediates in the Earth's Atmosphere: Impact, Challenges, and Progress. <i>Journal of Physical Chemistry A</i> , 2021, 125, 10264-10279.	1.1	3
164	Highly Oxygenated Organic Nitrates Formed from NO ₃ Radical-Initiated Oxidation of β -Pinene. <i>Environmental Science & Technology</i> , 2021, 55, 15658-15671.	4.6	17
165	Observation and simulation of HO _x radicals in an urban area in Shanghai, China. <i>Science of the Total Environment</i> , 2022, 810, 152275.	3.9	9
166	Reconciling Observed and Predicted Tropical Rainforest OH Concentrations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	6
167	Seasonality of isoprene emissions and oxidation products above the remote Amazon. <i>Environmental Science Atmospheres</i> , 2022, 2, 230-240.	0.9	4
168	Energy-resolved and time-dependent unimolecular dissociation of hydroperoxyalkyl radicals (E TM QOOH). <i>Faraday Discussions</i> , 0, 238, 575-588.	1.6	2
169	Direct Measurements of Isoprene Autoxidation: Pinpointing Atmospheric Oxidation in Tropical Forests. <i>Jacs Au</i> , 2022, 2, 809-818.	3.6	6
170	Impact of Drought on Isoprene Fluxes Assessed Using Field Data, Satellite-Based GLEAM Soil Moisture and HCHO Observations from OMI. <i>Remote Sensing</i> , 2022, 14, 2021.	1.8	5
173	Anthropogenic monoterpenes aggravating ozone pollution. <i>National Science Review</i> , 2022, 9, .	4.6	17
174	A Four Carbon Organonitrate as a Significant Product of Secondary Isoprene Chemistry. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	8
175	OH and HO ₂ radical chemistry at a suburban site during the EXPLORE-YRD campaign in 2018. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 7005-7028.	1.9	19
176	Improved sensitivity on detection of Cu and Cr in liquids using glow discharge technology assisted with LIBS. <i>Plasma Science and Technology</i> , 0, , .	0.7	1

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177	Investigation of the limonene photooxidation by OH at different NO concentrations in the atmospheric simulation chamber SAPHIR (Simulation of Atmospheric PHotochemistry In a large) Tj ETQq0 0 0 rgBT 10verlock310 Tf 50 7		
178	A Theoretical Perspective on the Actinic Photochemistry of 2-Hydroperoxypropanal. Journal of Physical Chemistry A, 2022, 126, 5420-5433.	1.1	3
179	Probing isoprene photochemistry at atmospherically relevant nitric oxide levels. Chem, 2022, 8, 3225-3240.	5.8	4
180	Radical chemistry in the Pearl River Delta: observations and modeling of OH and HO ₂ radicals in Shenzhen in 2018. Atmospheric Chemistry and Physics, 2022, 22, 12525-12542.	1.9	13
181	Cost-Effective Implementation of Multiconformer Transition State Theory for Alkoxy Radical Unimolecular Reactions. Journal of Physical Chemistry A, 2022, 126, 6483-6494.	1.1	4
182	Review of technologies and their applications for the speciated detection of RO ₂ radicals. Journal of Environmental Sciences, 2023, 123, 487-499.	3.2	2
183	Atmospheric degradation of two pesticides mixed with volatile organic compounds emitted by citrus trees. Ozone and secondary organic aerosol production. Atmospheric Environment, 2023, 295, 119541.	1.9	3
184	Atmospheric degradation mechanisms and kinetics for OH-initiated oxidation of <i>trans</i> - β -ocimene. Molecular Physics, 0, , .	0.8	0
185	Organic Peroxides in Aerosol: Key Reactive Intermediates for Multiphase Processes in the Atmosphere. Chemical Reviews, 2023, 123, 1635-1679.	23.0	29
186	Strong relations of peroxyacetyl nitrate (PAN) formation to alkene and nitrous acid during various episodes. Environmental Pollution, 2023, 326, 121465.	3.7	1
187	Experimental chemical budgets of OH, HO ₂ , and RO ₂ radicals in rural air in western Germany during the JULIAC campaign 2019. Atmospheric Chemistry and Physics, 2023, 23, 2003-2033.	1.9	1
188	The reaction of organic peroxy radicals with unsaturated compounds controlled by a non-epoxide pathway under atmospheric conditions. Physical Chemistry Chemical Physics, 2023, 25, 7772-7782.	1.3	1
189	Comparison of isoprene chemical mechanisms under atmospheric night-time conditions in chamber experiments: evidence of hydroperoxy aldehydes and epoxy products from NO ₃ oxidation. Atmospheric Chemistry and Physics, 2023, 23, 3147-3180.	1.9	1
190	Preparation of Experiments: Addition and In Situ Production of Trace Gases and Oxidants in the Gas Phase. , 2023, , 129-161.		0
191	Introduction to Atmospheric Simulation Chambers and Their Applications. , 2023, , 1-72.		0