Philip S Stevens

List of Publications by Year
in descending order

84 papers	3,870 citations	126708 33 h-index	143772 57 g-index
130 all docs	130 docs citations	130 times ranked	3307 citing authors

#	Article	IF	Citations
1	Chemistry and human exposure implications of secondary organic aerosol production from indoor terpene ozonolysis. Science Advances, 2022, 8, eabj9156.	4.7	25
2	Quantifying Nitrous Acid Formation Mechanisms Using Measured Vertical Profiles During the CalNex 2010 Campaign and 1D Column Modeling. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034689.	1.2	10
3	Measurements of Total OH Reactivity During CalNexâ€LA. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD032988.	1.2	5
4	Spatial and temporal scales of variability for indoor air constituents. Communications Chemistry, 2021, 4, .	2.0	26
5	Development of a laser-photofragmentation laser-induced fluorescence instrument for the detection of nitrous acid and hydroxyl radicals in the atmosphere. Atmospheric Measurement Techniques, 2021, 14, 6039-6056.	1.2	10
6	FORest Canopy Atmosphere Transfer (FORCAsT) 2.0: model updates and evaluation with observations at a mixed forest site. Geoscientific Model Development, 2021, 14, 6309-6329.	1.3	4
7	Chemical amplification enhanced measurements of peroxy radicals by photoacoustic spectroscopy. , 2021, , .		1
8	Influence of Mechanical Ventilation Systems and Human Occupancy on Time-Resolved Source Rates of Volatile Skin Oil Ozonolysis Products in a LEED-Certified Office Building. Environmental Science & Technology, 2021, 55, 16477-16488.	4.6	13
9	Characterization of a chemical amplifier for peroxy radical measurements in the atmosphere. Atmospheric Environment, 2020, 222, 117106.	1.9	9
10	Cooking, Bleach Cleaning, and Air Conditioning Strongly Impact Levels of HONO in a House. Environmental Science & Technology, 2020, 54, 13488-13497.	4.6	27
11	Investigation of Isoprene Dynamics During the Dayâ€toâ€Night Transition Period. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032784.	1.2	4
12	Contrasting Reactive Organic Carbon Observations in the Southeast United States (SOAS) and Southern California (CalNex). Environmental Science & Technology, 2020, 54, 14923-14935.	4.6	15
13	OH and HO₂ radical chemistry in a midlatitude forest: measurements and model comparisons. Atmospheric Chemistry and Physics, 2020, 20, 9209-9230.	1.9	17
14	Overview of HOMEChem: House Observations of Microbial and Environmental Chemistry. Environmental Sciences: Processes and Impacts, 2019, 21, 1280-1300.	1.7	140
15	Peroxy radical measurements by ethane â€“ nitric oxide chemical amplification and laser-induced fluorescence during the IRRONIC field campaign in a forest in Indiana. Atmospheric Chemistry and Physics, 2019, 19, 9563-9579.	1.9	8
16	Simulating secondary organic aerosol in a regional air quality model using the statistical oxidation model â€“ Part 3: Assessing the influence of semi-volatile and intermediate-volatility organic compounds and NO_{<i>x</i>}. Atmospheric Chemistry and Physics, 2019, 19, 4561-4594.	1.9	29
17	Simulating the Weekly Cycle of NO x â€VOCâ€HO x â€O 3 Photochemical System in the South Coast of California During CalNexâ€2010 Campaign. Journal of Geophysical Research D: Atmospheres, 2019, 124, 3532-3555.	1.2	8
18	Chemistry of Volatile Organic Compounds in the Los Angeles Basin: Formation of Oxygenated Compounds and Determination of Emission Ratios. Journal of Geophysical Research D: Atmospheres, 2018, 123, 2298-2319.	1.2	43

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19	Measurements of a potential interference with laser-induced fluorescence measurements of ambient OH from the ozonolysis of biogenic alkenes. Atmospheric Measurement Techniques, 2018, 11, 1-16.	1.2	35
20	Development of an instrument for direct ozone production rate measurements: measurement reliability and current limitations. Atmospheric Measurement Techniques, 2018, 11, 741-761.	1.2	7
21	Measurement of interferences associated with the detection of the hydroperoxy radical in the atmosphere using laser-induced fluorescence. Atmospheric Measurement Techniques, 2018, 11, 95-109.	1.2	30
22	Bidirectional Ecosystemâ€"Atmosphere Fluxes of Volatile Organic Compounds Across the Mass Spectrum: How Many Matter?. ACS Earth and Space Chemistry, 2018, 2, 764-777.	1.2	39
23	Recent Advances in the Chemistry of OH and HO2 Radicals in the Atmosphere: Field and Laboratory Measurements. , 2017, , 493-579.		5
24	Chemistry of Volatile Organic Compounds in the Los Angeles basin: Nighttime Removal of Alkenes and Determination of Emission Ratios. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,843.	1.2	37
25	Differences in BVOC oxidation and SOA formation above and below the forest canopy. Atmospheric Chemistry and Physics, 2017, 17, 1805-1828.	1.9	12
26	Measurements of hydroxyl and hydroperoxy radicals during CalNexâ€LA: Model comparisons and radical budgets. Journal of Geophysical Research D: Atmospheres, 2016, 121, 4211-4232.	1.2	81
27	Experimental and Theoretical Study of the Kinetics of the OH + Propionaldehyde Reaction between 277 and 375 K at Low Pressure. Journal of Physical Chemistry A, 2016, 120, 1377-1385.	1.1	0
28	Detailed characterizations of the new Mines Douai comparative reactivity method instrument via laboratory experiments and modeling. Atmospheric Measurement Techniques, 2015, 8, 3537-3553.	1.2	34
29	Intercomparison of the comparative reactivity method (CRM) and pumpâ€"probe technique for measuring total OH reactivity in an urban environment. Atmospheric Measurement Techniques, 2015, 8, 4243-4264.	1.2	30
30	Gas and aerosol carbon in California: comparison of measurements and model predictions in Pasadena and Bakersfield. Atmospheric Chemistry and Physics, 2015, 15, 5243-5258.	1.9	48
31	An Atmospheric Constraint on the NO₂ Dependence of Daytime Near-Surface Nitrous Acid (HONO). Environmental Science & Technology, 2015, 49, 12774-12781.	4.6	26
32	Measurements of total hydroxyl radical reactivity during CABINEX 2009 â€" Part 1: field measurements. Atmospheric Chemistry and Physics, 2014, 14, 2923-2937.	1.9	51
33	Chlorine as a primary radical: evaluation of methods to understand its role in initiation of oxidative cycles. Atmospheric Chemistry and Physics, 2014, 14, 3427-3440.	1.9	90
34	Temperature dependence of the yields of methacrolein and methyl vinyl ketone from the OH-initiated oxidation of isoprene under NOx-free conditions. Atmospheric Environment, 2013, 79, 59-66.	1.9	6
35	Measurements of the Kinetics of the Reaction of OH Radicals with 3â€Methylfuran at Low Pressure. International Journal of Chemical Kinetics, 2013, 45, 787-794.	1.0	5
36	OH and HO₂ radical chemistry during PROPHET 2008 and CABINEX 2009 â€" Part 1: Measurements and model comparison. Atmospheric Chemistry and Physics, 2013, 13, 5403-5423.	1.9	62

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37	Organic aerosol composition and sources in Pasadena, California, during the 2010 CalNex campaign. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9233-9257.	1.2	231
38	Contributions of individual reactive biogenic volatile organic compounds to organic nitrates above a mixed forest. Atmospheric Chemistry and Physics, 2012, 12, 10125-10143.	1.9	29
39	In-canopy gas-phase chemistry during CABINEX 2009: sensitivity of a 1-D canopy model to vertical mixing and isoprene chemistry. Atmospheric Chemistry and Physics, 2012, 12, 8829-8849.	1.9	78
40	Influence of Water on Anharmonicity, Stability, and Vibrational Energy Distribution of Hydrogen-Bonded Adducts in Atmospheric Reactions: Case Study of the OH + Isoprene Reaction Intermediate Using Ab Initio Molecular Dynamics. Journal of Physical Chemistry A, 2012, 116, 399-414.	1.1	27
41	â€œPumpâ€"Probeâ€•Atom-Centered Density Matrix Propagation Studies To Gauge Anharmonicity and Energy Repartitioning in Atmospheric Reactive Adducts: Case Study of the OH + Isoprene and OH + Butadiene Reaction Intermediates. Journal of Physical Chemistry A, 2012, 116, 4108-4128.	1.1	9
42	Kinetic isotope effects and rate constants for the gas-phase reactions of three deuterated toluenes with OH from 298 to 353 K. International Journal of Chemical Kinetics, 2012, 44, 821-827.	1.0	4
43	Observations and modeling of formaldehyde at the PROPHET mixed hardwood forest site in 2008. Atmospheric Environment, 2012, 49, 403-410.	1.9	9
44	Rate Constants for the Gas-Phase Reactions of OH and O₃ with Î²-Ocimene, Î²-Myrcene, and Î±-and Î²-Farnesene as a Function of Temperature. Journal of Physical Chemistry A, 2011, 115, 500-506.	1.1	35
45	Radical Dependence of the Yields of Methacrolein and Methyl Vinyl Ketone from the OH-Initiated Oxidation of Isoprene under NOx-Free Conditions. Environmental Science & Technology, 2011, 45, 923-929.	4.6	18
46	The glyoxal budget and its contribution to organic aerosol for Los Angeles, California, during CalNex 2010. Journal of Geophysical Research, 2011, 116, .	3.3	99
47	Nitric acid photolysis on forest canopy surface as a source for tropospheric nitrous acid. Nature Geoscience, 2011, 4, 440-443.	5.4	200
48	Impacts of HONO sources on the photochemistry in Mexico City during the MCMA-2006/MILAGO Campaign. Atmospheric Chemistry and Physics, 2010, 10, 6551-6567.	1.9	222
49	An overview of the MILAGRO 2006 Campaign: Mexico City emissions and their transport and transformation. Atmospheric Chemistry and Physics, 2010, 10, 8697-8760.	1.9	349
50	Experimental and Theoretical Studies of the Kinetics of the OH + Hydroxyacetone Reaction As a Function of Temperature. Journal of Physical Chemistry A, 2009, 113, 10495-10502.	1.1	20
51	Measurements of OH and HO₂ concentrations during the MCMA-2006 field campaign â€" Part 1: Deployment of the Indiana University laser-induced fluorescence instrument. Atmospheric Chemistry and Physics, 2009, 9, 1665-1685.	1.9	104
52	Measurements of OH and HO₂ concentrations during the MCMA-2006 field campaign â€" Part 2: Model comparison and radical budget. Atmospheric Chemistry and Physics, 2009, 9, 6655-6675.	1.9	105
53	Experimental and Ab Initio Dynamical Investigations of the Kinetics and Intramolecular Energy Transfer Mechanisms for the OH + 1,3-Butadiene Reaction between 263 and 423 K at Low Pressure. Journal of Physical Chemistry A, 2008, 112, 7227-7237.	1.1	29
54	Technical note: Measuring tropospheric OH and HO₂ by laser-induced fluorescence at low pressure. A comparison of calibration techniques. Atmospheric Chemistry and Physics, 2008, 8, 321-340.	1.9	65

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55	Measurements of HNO₃ and N₂O₅ using ion drift-chemical ionization mass spectrometry during the MILAGRO/MCMA-2006 campaign. Atmospheric Chemistry and Physics, 2008, 8, 6823-6838.	1.9	83
56	Experimental and Theoretical Studies of the Kinetics of the Reactions of OH and OD with 2-Methyl-3-buten-2-ol between 300 and 415 K at Low Pressure. Journal of Physical Chemistry A, 2007, 111, 640-649.	1.1	19
57	Experimental and Theoretical Studies of the Kinetics of the Reactions of OH Radicals with Acetic Acid, Acetic Acid-d3 and Acetic Acid-d4 at Low Pressure. Journal of Physical Chemistry A, 2006, 110, 11509-11516.	1.1	22
58	Experimental and theoretical studies of the kinetics of the reactions of OH and OD with acetone and acetone-d6 at low pressure. Journal of Photochemistry and Photobiology A: Chemistry, 2005, 176, 162-171.	2.0	12
59	Measurements of the kinetics of the OH-initiated oxidation of -pinene: Radical propagation in the OH+-pinene+O+NO reaction system. Atmospheric Environment, 2005, 39, 1765-1774.	1.9	15
60	Measurements of the kinetics of the OH-initiated oxidation of Î²-pinene: Radical propagation in the OH + Î²-pinene + O2 + NO reaction system. International Journal of Chemical Kinetics, 2005, 37, 522-531.	1.0	7
61	Monitoring OH-Initiated Oxidation Kinetics of Isoprene and Its Products Using Online Mass Spectrometry. Environmental Science & Technology, 2005, 39, 1030-1036.	4.6	48
62	Relative Rate and Product Studies of the OHâˆ'Acetone Reaction. Journal of Physical Chemistry A, 2005, 109, 4728-4735.	1.1	28
63	Measurements of the kinetics of the OH-initiated oxidation of methyl vinyl ketone and methacrolein. International Journal of Chemical Kinetics, 2004, 36, 12-25.	1.0	32
64	Rate Constants for the Gas-Phase Reactions of Methylphenanthrenes with OH as a Function of Temperature. Journal of Physical Chemistry A, 2003, 107, 6603-6608.	1.1	38
65	Kinetics of the OH + Methyl Vinyl Ketone and OH + Methacrolein Reactions at Low Pressure. Journal of Physical Chemistry A, 2003, 107, 2185-2191.	1.1	25
66	Measurements of the kinetics of the OH-initiated oxidation of isoprene. Journal of Geophysical Research, 2002, 107, ACH 2-1.	3.3	50
67	Measurements of the kinetics of the OH + ?-pinene and OH + ?-pinene reactions at low pressure. International Journal of Chemical Kinetics, 2002, 34, 300-308.	1.0	23
68	Theoretical and Experimental Studies of the Reaction of OH with Isoprene. Journal of Physical Chemistry A, 2000, 104, 5989-5997.	1.1	39
69	Kinetic Study of the OH + Isoprene and OH + Ethylene Reactions between 2 and 6 Torr and over the Temperature Range 300â€"423 K. Journal of Physical Chemistry A, 2000, 104, 5230-5237.	1.1	52
70	Measurements of the kinetics of the OH-initiated oxidation of isoprene: Radical propagation in the OH + isoprene + O2 + NO reaction system. International Journal of Chemical Kinetics, 1999, 31, 637-643.	1.0	58
71	OH and HO2measurements using laser-induced fluorescence. Journal of Geophysical Research, 1997, 102, 6427-6436.	3.3	76
72	Peroxy radicals from photostationary state deviations and steady state calculations during the Tropospheric OH Photochemistry Experiment at Idaho Hill, Colorado, 1993. Journal of Geophysical Research, 1997, 102, 6369-6378.	3.3	79

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73	HO2/OH and RO2/HO2ratios during the Tropospheric OH Photochemistry Experiment: Measurement and theory. Journal of Geophysical Research, 1997, 102, 6379-6391.	3.3	90
74	Measuring OH and HO2in the Troposphere by Laser-Induced Fluorescence at Low Pressure. Journals of the Atmospheric Sciences, 1995, 52, 3328-3336.	0.6	63
75	Measurement of tropospheric OH and HO2by laser-induced fluorescence at low pressure. Journal of Geophysical Research, 1994, 99, 3543.	3.3	125
76	Kinetic and mechanistic study of X + ClOCl .fwdarw. products (X = Br, Cl, F, O, OH, N) over the temperature range 240-373 K. The Journal of Physical Chemistry, 1992, 96, 1708-1718.	2.9	24
77	Kinetic measurements of the ClO + O₃ â†' ClOO + O₂ reaction. Geophysical Research Letters, 1990, 17, 1287-1290.	1.5	7
78	Kinetics and mechanism of X + ClNO .fwdarw. XCl + NO (X = Cl, F, Br, OH, O, N) from 220 K to 450 K. Correlation of reactivity and activation energy with electron affinity of X. The Journal of Physical Chemistry, 1989, 93, 1022-1029.	2.9	38
79	Kinetic and mechanistic investigations of fluorine atom + water/water-d2 and fluorine atom + hydrogen/deuterium over the temperature range 240-373 K. The Journal of Physical Chemistry, 1989, 93, 4068-4079.	2.9	73
80	Vibrational spectra and a potential function for 3-chlorocyclopropene and its various deuterated modifications. Spectrochimica Acta Part A: Molecular Spectroscopy, 1987, 43, 569-582.	0.1	4
81	Vibrational spectra of 3-fluorocyclopropene-d0 and -d3. Spectrochimica Acta Part A: Molecular Spectroscopy, 1987, 43, 753-761.	0.1	5
82	Vibrational spectra of cyclopropenyl cations (C3H3+, C3D3+, C3H2D+, and C3D2H+) and force constants for this ion system. Journal of the American Chemical Society, 1986, 108, 4378-4386.	6.6	40
83	Force constants for the cyclopropenyl cation. Journal of the American Chemical Society, 1984, 106, 7637-7638.	6.6	4
84	3-Fluorocyclopropene. Journal of Organic Chemistry, 1984, 49, 3847-3848.	1.7	8