Paul B Shepson

List of Publications by Year
in descending order

84 papers	6,315 citations	66234 42 h-index	71532 76 g-index
84 all docs	84 docs citations	84 times ranked	5785 citing authors

#	Article	IF	Citations
1	New York City greenhouse gas emissions estimated with inverse modeling of aircraft measurements. Elementa, 2022, 10, .	1.1	8
2	Carbon Monoxide Emissions from the Washington, DC, and Baltimore Metropolitan Area: Recent Trend and COVID-19 Anomaly. Environmental Science & Technology, 2022, 56, 2172-2180.	4.6	7
3	A spatially explicit inventory scaling approach to estimate urban CO2 emissions. Elementa, 2022, 10, .	1.1	0
4	Relative flux measurements of biogenic and natural gas-derived methane for seven U.S. cities. Elementa, 2021, 9, .	1.1	7
5	Chemical Imaging of Fine Mode Atmospheric Particles Collected from a Research Aircraft over Agricultural Fields. ACS Earth and Space Chemistry, 2020, 4, 2171-2184.	1.2	16
6	Bromine Chloride in the Coastal Arctic: Diel Patterns and Production Mechanisms. ACS Earth and Space Chemistry, 2020, 4, 620-630.	1.2	9
7	Fluxes of Atmospheric Greenhouseâ€Gases in Maryland (FLAGGâ€MD): Emissions of Carbon Dioxide in the Baltimore, MDâ€Washington, D.C. Area. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032004.	1.2	11
8	Wintertime CO₂, CH₄, and CO Emissions Estimation for the Washington, DCâ€“Baltimore Metropolitan Area Using an Inverse Modeling Technique. Environmental Science & Technology, 2020, 54, 2606-2614.	4.6	25
9	Arctic Reactive Bromine Events Occur in Two Distinct Sets of Environmental Conditions: A Statistical Analysis of 6ÂYears of Observations. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032139.	1.2	9
10	Fluxes of Atmospheric Greenhouse-Gases in Maryland (FLAGG-MD): Emissions of Carbon Dioxide in the Baltimore, MD-Washington, D.C. area. Journal of Geophysical Research D: Atmospheres, 2020, 125, .	1.2	0
11	Direct detection of atmospheric atomic bromine leading to mercury and ozone depletion. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14479-14484.	3.3	68
12	Observations of Methane Emissions from Natural Gas-Fired Power Plants. Environmental Science & Technology, 2019, 53, 8976-8984.	4.6	19
13	Springtime Nitrogen Oxide-Influenced Chlorine Chemistry in the Coastal Arctic. Environmental Science & Technology, 2019, 53, 8057-8067.	4.6	28
14	Bouncier Particles at Night: Biogenic Secondary Organic Aerosol Chemistry and Sulfate Drive Diel Variations in the Aerosol Phase in a Mixed Forest. Environmental Science & Technology, 2019, 53, 4977-4987.	4.6	72
15	Vertical profile observations of water vapor deuterium excess in the lower troposphere. Atmospheric Chemistry and Physics, 2019, 19, 11525-11543.	1.9	17
16	Lake Spray Aerosol Incorporated into Great Lakes Clouds. ACS Earth and Space Chemistry, 2019, 3, 2765-2774.	1.2	11
17	Methane Emissions from the Marcellus Shale in Southwestern Pennsylvania and Northern West Virginia Based on Airborne Measurements. Journal of Geophysical Research D: Atmospheres, 2019, 124, 1862-1878.	1.2	26
18	Synthesis of Urban CO₂ Emission Estimates from Multiple Methods from the Indianapolis Flux Project (INFLUX). Environmental Science & Technology, 2019, 53, 287-295.	4.6	50

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19	Doppler Lidar Observations of the Mixing Height in Indianapolis Using an Automated Composite Fuzzy Logic Approach. Journal of Atmospheric and Oceanic Technology, 2018, 35, 473-490.	0.5	44
20	Synthesis of the Southeast Atmosphere Studies: Investigating Fundamental Atmospheric Chemistry Questions. Bulletin of the American Meteorological Society, 2018, 99, 547-567.	1.7	62
21	Topâ€Down Estimates of NO_x and CO Emissions From Washington, D.C.â€Baltimore During the WINTER Campaign. Journal of Geophysical Research D: Atmospheres, 2018, 123, 7705-7724.	1.2	35
22	Methane Emissions From the Baltimoreâ€Washington Area Based on Airborne Observations: Comparison to Emissions Inventories. Journal of Geophysical Research D: Atmospheres, 2018, 123, 8869-8882.	1.2	43
23	Assessment of methane emissions from the U.S. oil and gas supply chain. Science, 2018, 361, 186-188.	6.0	519
24	Assessing the Methane Emissions from Natural Gas-Fired Power Plants and Oil Refineries. Environmental Science & Technology, 2017, 51, 3373-3381.	4.6	55
25	A surface-stabilized ozonide triggers bromide oxidation at the aqueous solution-vapour interface. Nature Communications, 2017, 8, 700.	5.8	59
26	Active molecular iodine photochemistry in the Arctic. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10053-10058.	3.3	63
27	Inland Sea Spray Aerosol Transport and Incomplete Chloride Depletion: Varying Degrees of Reactive Processing Observed during SOAS. Environmental Science & Technology, 2017, 51, 9533-9542.	4.6	56
28	Spatiotemporal Variability of Methane Emissions at Oil and Natural Gas Operations in the Eagle Ford Basin. Environmental Science & Technology, 2017, 51, 8001-8009.	4.6	42
29	Urban emissions of water vapor in winter. Journal of Geophysical Research D: Atmospheres, 2017, 122, 9467-9484.	1.2	18
30	Assessing the optimized precision of the aircraft mass balance method for measurement of urban greenhouse gas emission rates through averaging. Elementa, 2017, 5, .	1.1	46
31	Reconciling the differences between a bottom-up and inverse-estimated FFCO2 emissions estimate in a large US urban area. Elementa, 2017, 5, .	1.1	28
32	Field measurements and modeling to resolve m2 to km2 CH4 emissions for a complex urban source: An Indiana landfill study. Elementa, 2017, 5, .	1.1	14
33	The Indianapolis Flux Experiment (INFLUX): A test-bed for developing urban greenhouse gas emission measurements. Elementa, 2017, 5, .	1.1	59
34	Chemical characterization of Î±â€pinene secondary organic aerosol constituents using gas chromatography, liquid chromatography, and paper sprayâ€based mass spectrometry techniques. Rapid Communications in Mass Spectrometry, 2016, 30, 1627-1638.	0.7	9
35	Constraints on Arctic Atmospheric Chlorine Production through Measurements and Simulations of Cl₂ and ClO. Environmental Science & Technology, 2016, 50, 12394-12400.	4.6	30
36	Highâ€resolution atmospheric inversion of urban CO₂ emissions during the dormant season of the Indianapolis Flux Experiment (INFLUX). Journal of Geophysical Research D: Atmospheres, 2016, 121, 5213-5236.	1.2	219

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37	Direct and Indirect Measurements and Modeling of Methane Emissions in Indianapolis, Indiana. Environmental Science & Technology, 2016, 50, 8910-8917.	4.6	91
38	Arctic springtime observations of volatile organic compounds during the OASISâ€2009 campaign. Journal of Geophysical Research D: Atmospheres, 2016, 121, 9789-9813.	1.2	16
39	Black Carbon Emissions from Associated Natural Gas Flaring. Environmental Science & Technology, 2016, 50, 2075-2081.	4.6	54
40	Direct Measurement of pH in Individual Particles via Raman Microspectroscopy and Variation in Acidity with Relative Humidity. Journal of Physical Chemistry A, 2016, 120, 911-917.	1.1	95
41	Highly functionalized organic nitrates in the southeast United States: Contribution to secondary organic aerosol and reactive nitrogen budgets. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1516-1521.	3.3	269
42	Toward quantification and source sector identification of fossil fuel CO₂ emissions from an urban area: Results from the INFLUX experiment. Journal of Geophysical Research D: Atmospheres, 2015, 120, 292-312.	1.2	140
43	Reconciling divergent estimates of oil and gas methane emissions. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15597-15602.	3.3	209
44	Modeling the Current and Future Roles of Particulate Organic Nitrates in the Southeastern United States. Environmental Science & Technology, 2015, 49, 14195-14203.	4.6	147
45	Aircraft-Based Estimate of Total Methane Emissions from the Barnett Shale Region. Environmental Science & Technology, 2015, 49, 8124-8131.	4.6	190
46	Aircraft-Based Measurements of Point Source Methane Emissions in the Barnett Shale Basin. Environmental Science & Technology, 2015, 49, 7904-7913.	4.6	93
47	Constructing a Spatially Resolved Methane Emission Inventory for the Barnett Shale Region. Environmental Science & Technology, 2015, 49, 8147-8157.	4.6	133
48	The photochemical production of organic nitrates from Î±-pinene and loss via acid-dependent particle phase hydrolysis. Atmospheric Environment, 2015, 100, 193-201.	1.9	105
49	Quantification and source apportionment of the methane emission flux from the city of Indianapolis. Elementa, 2015, 3, .	1.1	50
50	High levels of molecular chlorine in the Arctic atmosphere. Nature Geoscience, 2014, 7, 91-94.	5.4	105
51	Toward a better understanding and quantification of methane emissions from shale gas development. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6237-6242.	3.3	296
52	Assessment of uncertainties of an aircraft-based mass balance approach for quantifying urban greenhouse gas emissions. Atmospheric Chemistry and Physics, 2014, 14, 9029-9050.	1.9	109
53	Photochemical production of molecular bromine in Arctic surface snowpacks. Nature Geoscience, 2013, 6, 351-356.	5.4	175
54	Field and satellite observations of the formation and distribution of Arctic atmospheric bromine above a rejuvenated sea ice cover. Journal of Geophysical Research, 2012, 117, .	3.3	43

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55	Observations of inorganic bromine (HOBr, BrO, and Br₂) speciation at Barrow, Alaska, in spring 2009. Journal of Geophysical Research, 2012, 117, .	3.3	71
56	The relative importance of chlorine and bromine radicals in the oxidation of atmospheric mercury at Barrow, Alaska. Journal of Geophysical Research, 2012, 117, .	3.3	59
57	Ozone dynamics and snowâ€atmosphere exchanges during ozone depletion events at Barrow, Alaska. Journal of Geophysical Research, 2012, 117, .	3.3	52
58	Analysis of atmospheric inputs of nitrate to a temperate forest ecosystem from Î”¹⁷O isotope ratio measurements. Geophysical Research Letters, 2011, 38, .	1.5	42
59	A comparison of Arctic BrO measurements by chemical ionization mass spectrometry and long path-differential optical absorption spectroscopy. Journal of Geophysical Research, 2011, 116, .	3.3	105
60	Nitric acid photolysis on forest canopy surface as a source for tropospheric nitrous acid. Nature Geoscience, 2011, 4, 440-443.	5.4	200
61	Aerosol production from the surface of the Great Lakes. Geophysical Research Letters, 2010, 37, .	1.5	33
62	Aircraft-Based Measurements of the Carbon Footprint of Indianapolis. Environmental Science & Technology, 2009, 43, 7816-7823.	4.6	167
63	Aircraft measurement of HONO vertical profiles over a forested region. Geophysical Research Letters, 2009, 36, .	1.5	77
64	Foliar uptake of atmospheric organic nitrates. Geophysical Research Letters, 2008, 35, .	1.5	39
65	A study of the vertical scale of halogen chemistry in the Arctic troposphere during Polar Sunrise at Barrow, Alaska. Journal of Geophysical Research, 2007, 112, .	3.3	45
66	Processing of atmospheric nitrogen by clouds above a forest environment. Journal of Geophysical Research, 2007, 112, .	3.3	71
67	Chlorine and bromine atom ratios in the springtime Arctic troposphere as determined from measurements of halogenated volatile organic compounds. Journal of Geophysical Research, 2006, 111, .	3.3	48
68	An Airborne and Wind Tunnel Evaluation of a Wind Turbulence Measurement System for Aircraft-Based Flux Measurements*. Journal of Atmospheric and Oceanic Technology, 2006, 23, 1696-1708.	0.5	72
69	The production of organic nitrates from atmospheric oxidation of ethers and glycol ethers. International Journal of Chemical Kinetics, 2005, 37, 686-699.	1.0	19
70	The production of organic nitrates from various anthropogenic volatile organic compounds. International Journal of Chemical Kinetics, 2005, 37, 675-685.	1.0	25
71	Molecular dynamics simulations of ice growth from supercooled water. Molecular Physics, 2005, 103, 2957-2967.	0.8	98
72	Comparison of the measured and simulated isoprene nitrate distributions above a forest canopy. Journal of Geophysical Research, 2005, 110, .	3.3	61

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73	Measurement of wet deposition of inorganic and organic nitrogen in a forest environment. Journal of Geophysical Research, 2005, 110, n/a-n/a.	3.3	22
74	Photochemistry and nature of organic matter in Arctic and Antarctic snow. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	1.9	123
75	A study of the NOxdependence of isoprene oxidation. Journal of Geophysical Research, 2004, 109, .	3.3	31
76	A comparison of isoprene nitrate concentrations at two forest-impacted sites. Journal of Geophysical Research, 2004, 109, .	3.3	32
77	Peroxyacetyl nitrate photochemistry and interactions with the Arctic surface. Journal of Geophysical Research, 2004, 109, .	3.3	27
78	NMR Investigation of the Quasi-Brine Layer in Ice/Brine Mixtures. Journal of Physical Chemistry B, 2002, 106, 11226-11232.	1.2	187
79	Loss of isoprene and sources of nighttime OH radicals at a rural site in the United States: Results from photochemical models. Journal of Geophysical Research, 2002, 107, ACH 2-1-ACH 2-14.	3.3	30
80	Studies of Peroxyacetyl nitrate (PAN) and its interaction with the snowpack at Summit, Greenland. Journal of Geophysical Research, 2002, 107, ACH 6-1-ACH 6-10.	3.3	32
81	Investigation of the role of the snowpack on atmospheric formaldehyde chemistry at Summit, Greenland. Journal of Geophysical Research, 2002, 107, ACH 9-1.	3.3	27
82	An investigation of the interaction of carbonyl compounds with the snowpack. Geophysical Research Letters, 2000, 27, 2241-2244.	1.5	68
83	Evidence of NOxproduction within or upon ice particles in the Greenland snowpack. Geophysical Research Letters, 1999, 26, 695-698.	1.5	337
84	Proton affinity of peroxyacetyl nitrate sampled by membrane introduction mass spectrometry. , 1998, 12, 328-334.		11