Andrew J Weinheimer

List of Publications by Year
in descending order

94 papers	5,911 citations	81900 39 h-index	85541 71 g-index
96 all docs	96 docs citations	96 times ranked	5064 citing authors

#	Article	IF	Citations
1	Effects of aging on organic aerosol from open biomass burning smoke in aircraft and laboratory studies. Atmospheric Chemistry and Physics, 2011, 11, 12049-12064.	4.9	520
2	Investigation of the sources and processing of organic aerosol over the Central Mexican Plateau from aircraft measurements during MILAGRO. Atmospheric Chemistry and Physics, 2010, 10, 5257-5280.	4.9	325
3	Effect of petrochemical industrial emissions of reactive alkenes and NOxon tropospheric ozone formation in Houston, Texas. Journal of Geophysical Research, 2003, 108, .	3.3	263
4	Nitrogen oxides and PAN in plumes from boreal fires during ARCTAS-B and their impact on ozone: an integrated analysis of aircraft and satellite observations. Atmospheric Chemistry and Physics, 2010, 10, 9739-9760.	4.9	234
5	Chemistry of hydrogen oxide radicals (HO_x) in the Arctic troposphere in spring. Atmospheric Chemistry and Physics, 2010, 10, 5823-5838.	4.9	220
6	Boreal forest fire emissions in fresh Canadian smoke plumes: C₁-C₁₀ volatile organic compounds (VOCs), CO₂, CO, NO₂, NO, HCN and CH₃CN. Atmospheric Chemistry and Physics, 2011, 11, 6445-6463.	4.9	209
7	Emissions of black carbon, organic, and inorganic aerosols from biomass burning in North America and Asia in 2008. Journal of Geophysical Research, 2011, 116, .	3.3	206
8	Characterization of trace gases measured over Alberta oil sands mining operations: 76 speciated C₂â€“C₁₀ volatile organic compounds (VOCs), CO₂, CH₄, CO, NO, NO₂, NO_y, O₃ and SO₂. Atmospheric Chemistry and Physics, 2010, 10, 11931-11954.	4.9	198
9	The Deep Convective Clouds and Chemistry (DC3) Field Campaign. Bulletin of the American Meteorological Society, 2015, 96, 1281-1309.	3.3	165
10	Chemical feedbacks weaken the wintertime response of particulate sulfate and nitrate to emissions reductions over the eastern United States. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8110-8115.	7.1	118
11	Measured and modeled CO and NO y in DISCOVER-AQ: An evaluation of emissions and chemistry over the eastern US. Atmospheric Environment, 2014, 96, 78-87.	4.1	114
12	Comparison of chemical characteristics of 495 biomass burning plumes intercepted by the NASA DC-8 aircraft during the ARCTAS/CARB-2008 field campaign. Atmospheric Chemistry and Physics, 2011, 11, 13325-13337.	4.9	106
13	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
14	High levels of molecular chlorine in the Arctic atmosphere. Nature Geoscience, 2014, 7, 91-94.	12.9	105
15	Meridional distributions of NOx, NOy, and other species in the lower stratosphere and upper troposphere during AASE II. Geophysical Research Letters, 1994, 21, 2583-2586.	4.0	103
16	Heterogeneous N₂O₅ Uptake During Winter: Aircraft Measurements During the 2015 WINTER Campaign and Critical Evaluation of Current Parameterizations. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4345-4372.	3.3	103
17	Airborne in-situ OH and HO2observations in the cloud-free troposphere and lower stratosphere during SUCCESS. Geophysical Research Letters, 1998, 25, 1701-1704.	4.0	100
18	Sources of HOxand production of ozone in the upper troposphere over the United States. Geophysical Research Letters, 1998, 25, 1709-1712.	4.0	98

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19	Fast-response airborne in situ measurements of HNO3during the Texas 2000 Air Quality Study. Journal of Geophysical Research, 2002, 107, ACH 8-1.	3.3	94
20	New insights into the column CH₂O/NO₂ ratio as an indicator of nearâ€surface ozone sensitivity. Journal of Geophysical Research D: Atmospheres, 2017, 122, 8885-8907.	3.3	87
21	Ozone production and its sensitivity to NO_{<i>x</i>} and VOCs: results from the DISCOVER-AQ field experiment, Houston 2013. Atmospheric Chemistry and Physics, 2016, 16, 14463-14474.	4.9	85
22	Coupled evolution of BrOx-ClOx-HOx-NOxchemistry during bromine-catalyzed ozone depletion events in the arctic boundary layer. Journal of Geophysical Research, 2003, 108, .	3.3	82
23	Observations of total RONO₂ over the boreal forest: NO_x sinks and HNO₃ sources. Atmospheric Chemistry and Physics, 2013, 13, 4543-4562.	4.9	76
24	Ozone depletion events observed in the high latitude surface layer during the TOPSE aircraft program. Journal of Geophysical Research, 2003, 108, TOP 4-1.	3.3	75
25	Emission characteristics of black carbon in anthropogenic and biomass burning plumes over California during ARCTASâ€CARB 2008. Journal of Geophysical Research, 2012, 117, .	3.3	73
26	Observations of inorganic bromine (HOBr, BrO, and Br₂) speciation at Barrow, Alaska, in spring 2009. Journal of Geophysical Research, 2012, 117, .	3.3	71
27	Revisiting the effectiveness of HCHO/NO2 ratios for inferring ozone sensitivity to its precursors using high resolution airborne remote sensing observations in a high ozone episode during the KORUS-AQ campaign. Atmospheric Environment, 2020, 224, 117341.	4.1	65
28	Analysis of satellite-derived Arctic tropospheric BrO columns in conjunction with aircraft measurements during ARCTAS and ARCPAC. Atmospheric Chemistry and Physics, 2012, 12, 1255-1285.	4.9	63
29	Convective transport of water vapor into the lower stratosphere observed during double-tropopause events. Journal of Geophysical Research D: Atmospheres, 2014, 119, 10,941-10,958.	3.3	63
30	Nitric acid uptake on subtropical cirrus cloud particles. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	62
31	Patterns of CO₂and radiocarbon across high northern latitudes during International Polar Year 2008. Journal of Geophysical Research, 2011, 116, .	3.3	59
32	On the effectiveness of nitrogen oxide reductions as a control over ammonium nitrate aerosol. Atmospheric Chemistry and Physics, 2016, 16, 2575-2596.	4.9	53
33	Global and regional effects of the photochemistry of CH₃O₂NO<sub>2</sub&a evidence from ARCTAS. Atmospheric Chemistry and Physics, 2011, 11, 4209-4219.	4.9	52
34	NO_{x} Lifetime and NO_{y} Partitioning During WINTER. Journal of Geophysical Research D: Atmospheres, 2018, 123, 9813-9827.	3.3	52
35	HONO Emissions from Western U.S. Wildfires Provide Dominant Radical Source in Fresh Wildfire Smoke. Environmental Science & Technology, 2020, 54, 5954-5963.	10.0	51
36	The Convective Transport of Active Species in the Tropics (CONTRAST) Experiment. Bulletin of the American Meteorological Society, 2017, 98, 106-128.	3.3	50

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37	Frequency and impact of summertime stratospheric intrusions over Maryland during DISCOVERâ€AQ (2011): New evidence from NASA's GEOSâ€5 simulations. Journal of Geophysical Research D: Atmospheres, 2016, 121, 3687-3706.	3.3	49
38	Nitrogen Oxides Emissions, Chemistry, Deposition, and Export Over the Northeast United States During the WINTER Aircraft Campaign. Journal of Geophysical Research D: Atmospheres, 2018, 123, 12,368.	3.3	49
39	Relationship between column-density and surface mixing ratio: Statistical analysis of O3 and NO2 data from the July 2011 Maryland DISCOVER-AQ mission. Atmospheric Environment, 2014, 92, 429-441.	4.1	46
40	Characteristics of tropospheric ozone depletion events in the Arctic spring: analysis of the ARCTAS, ARCPAC, and ARCIONS measurements and satellite BrO observations. Atmospheric Chemistry and Physics, 2012, 12, 9909-9922.	4.9	42
41	Emissions of Reactive Nitrogen From Western U.S. Wildfires During Summer 2018. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD032657.	3.3	41
42	The effect of entrainment through atmospheric boundary layer growth on observed and modeled surface ozone in the Colorado Front Range. Journal of Geophysical Research D: Atmospheres, 2017, 122, 6075-6093.	3.3	39
43	Nitrogen dioxide and formaldehyde measurements from the GEOstationary Coastal and Air Pollution Events (GEO-CAPE) Airborne Simulator over Houston, Texas. Atmospheric Measurement Techniques, 2018, 11, 5941-5964.	3.1	39
44	Flight Deployment of a Highâ€Resolution Timeâ€ofâ€Flight Chemical Ionization Mass Spectrometer: Observations of Reactive Halogen and Nitrogen Oxide Species. Journal of Geophysical Research D: Atmospheres, 2018, 123, 7670-7686.	3.3	39
45	Large vertical gradient of reactive nitrogen oxides in the boundary layer: Modeling analysis of DISCOVERâ€AQ 2011 observations. Journal of Geophysical Research D: Atmospheres, 2016, 121, 1922-1934.	3.3	38
46	Evaluation of simulated O3 production efficiency during the KORUS-AQ campaign: Implications for anthropogenic NOx emissions in Korea. Elementa, 2019, 7, .	3.2	38
47	Fraction and composition of NOytransported in air masses lofted from the North American continental boundary layer. Journal of Geophysical Research, 2004, 109, .	3.3	37
48	Mercury Emission Ratios from Coal-Fired Power Plants in the Southeastern United States during NOMADSS. Environmental Science & Technology, 2015, 49, 10389-10397.	10.0	36
49	Stratospheric Injection of Brominated Very Shortâ€Lived Substances: Aircraft Observations in the Western Pacific and Representation in Global Models. Journal of Geophysical Research D: Atmospheres, 2018, 123, 5690-5719.	3.3	36
50	Daytime Oxidized Reactive Nitrogen Partitioning in Western U.S. Wildfire Smoke Plumes. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033484.	3.3	36
51	Quantifying the contribution of thermally driven recirculation to a high-ozone event along the Colorado Front Range using lidar. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,377-10,390.	3.3	34
52	Nighttime and daytime dark oxidation chemistry in wildfire plumes: an observation and model analysis of FIREX-AQ aircraft data. Atmospheric Chemistry and Physics, 2021, 21, 16293-16317.	4.9	34
53	A pervasive role for biomass burning in tropical high ozone/low water structures. Nature Communications, 2016, 7, 10267.	12.8	33
54	BrO and inferred Br_{<i>y</i>} profiles over the western Pacific: relevance of inorganic bromine sources and a Br_{<i>y</i>} minimum in the aged tropical tropopause layer. Atmospheric Chemistry and Physics, 2017, 17, 15245-15270.	4.9	33

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55	Airborne Observations of Reactive Inorganic Chlorine and Bromine Species in the Exhaust of Coalâ€Fired Power Plants. Journal of Geophysical Research D: Atmospheres, 2018, 123, 11225-11237.	3.3	33
56	Formaldehyde in the Tropical Western Pacific: Chemical Sources and Sinks, Convective Transport, and Representation in CAMâ€Chem and the CCMI Models. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11201-11226.	3.3	32
57	Observation-based modeling of ozone chemistry in the Seoul metropolitan area during the Korea-United States Air Quality Study (KORUS-AQ). Elementa, 2020, 8, .	3.2	32
58	Observations of APAN during TexAQS 2000. Geophysical Research Letters, 2001, 28, 4195-4198.	4.0	31
59	ClNO₂ Yields From Aircraft Measurements During the 2015 WINTER Campaign and Critical Evaluation of the Current Parameterization. Journal of Geophysical Research D: Atmospheres, 2018, 123, 12,994.	3.3	31
60	Variability and Time of Day Dependence of Ozone Photochemistry in Western Wildfire Plumes. Environmental Science & Technology, 2021, 55, 10280-10290.	10.0	31
61	An inversion of NO_{<i>x</i>} and non-methane volatile organic compound (NMVOC) emissions using satellite observations during the KORUS-AQ campaign and implications for surface ozone over East Asia. Atmospheric Chemistry and Physics, 2020, 20, 9837-9854.	4.9	30
62	Simulating reactive nitrogen, carbon monoxide, and ozone in California during ARCTAS-CARB 2008 with high wildfire activity. Atmospheric Environment, 2016, 128, 28-44.	4.1	26
63	Airborne quantification of upper tropospheric NO<i>_x</i> production from lightning in deep convective storms over the United States Great Plains. Journal of Geophysical Research D: Atmospheres, 2016, 121, 2002-2028.	3.3	25
64	Impacts of the Denver Cyclone on regional air quality and aerosol formation in the Colorado Front Range during FRAPPÃ‰Â2014. Atmospheric Chemistry and Physics, 2016, 16, 12039-12058.	4.9	24
65	Using Observations and Sourceâ€Specific Model Tracers to Characterize Pollutant Transport During FRAPPÃ‰ and DISCOVERâ€AQ. Journal of Geophysical Research D: Atmospheres, 2017, 122, 10510-10538.	3.3	22
66	A complete dynamical ozone budget measured in the tropical marine boundary layer during PASE. Journal of Atmospheric Chemistry, 2011, 68, 55-70.	3.2	21
67	First Topâ€Down Estimates of Anthropogenic NO_{<i>x</i>} Emissions Using Highâ€Resolution Airborne Remote Sensing Observations. Journal of Geophysical Research D: Atmospheres, 2018, 123, 3269-3284.	3.3	21
68	Quantifying the impact of the North American monsoon and deep midlatitude convection on the subtropical lowermost stratosphere using in situ measurements. Journal of Geophysical Research, 2007, 112, .	3.3	20
69	Ozone profiles in the Baltimore-Washington region (2006â€"2011): satellite comparisons and DISCOVER-AQ observations. Journal of Atmospheric Chemistry, 2015, 72, 393-422.	3.2	20
70	Formaldehyde column density measurements as a suitable pathway to estimate nearâ€surface ozone tendencies from space. Journal of Geophysical Research D: Atmospheres, 2016, 121, 13088-13112.	3.3	19
71	Bimodal distribution of free tropospheric ozone over the tropical western Pacific revealed by airborne observations. Geophysical Research Letters, 2015, 42, 7844-7851.	4.0	18
72	An observationally constrained evaluation of the oxidative capacity in the tropical western Pacific troposphere. Journal of Geophysical Research D: Atmospheres, 2016, 121, 7461-7488.	3.3	18

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73	Higher measured than modeled ozone production at increased NO_{<i>x</i>} levels in the Colorado Front Range. Atmospheric Chemistry and Physics, 2017, 17, 11273-11292.	4.9	18
74	Modeling NH 4 NO 3 Over the San Joaquin Valley During the 2013 DISCOVERâ€AQ Campaign. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4727-4745.	3.3	18
75	Observations and Modeling of NO<i>_x</i> Photochemistry and Fate in Fresh Wildfire Plumes. ACS Earth and Space Chemistry, 2021, 5, 2652-2667.	2.7	17
76	Arctic springtime observations of volatile organic compounds during the OASISâ€2009 campaign. Journal of Geophysical Research D: Atmospheres, 2016, 121, 9789-9813.	3.3	16
77	Airborne measurements of BrO and the sum of HOBr and Br₂ over the Tropical West Pacific from 1 to 15â€‰km during the CONvective TRansport of Active Species in the Tropics (CONTRAST) experiment. Journal of Geophysical Research D: Atmospheres, 2016, 121, 12,560.	3.3	16
78	Large biogenic contribution to boundary layer O₃â€CO regression slope in summer. Geophysical Research Letters, 2017, 44, 7061-7068.	4.0	14
79	Characterizing CO and NO_{<i>y</i>} Sources and Relative Ambient Ratios in the Baltimore Area Using Ambient Measurements and Source Attribution Modeling. Journal of Geophysical Research D: Atmospheres, 2018, 123, 3304-3320.	3.3	14
80	Wintertime Overnight NO_{<i>x</i>} Removal in a Southeastern United States Coalâ€fired Power Plant Plume: A Model for Understanding Winter NO_{<i>x</i>} Processing and its Implications. Journal of Geophysical Research D: Atmospheres, 2018, 123, 1412-1425.	3.3	14
81	Rates of Wintertime Atmospheric SO₂ Oxidation based on Aircraft Observations during Clearâ€Sky Conditions over the Eastern United States. Journal of Geophysical Research D: Atmospheres, 2019, 124, 6630-6649.	3.3	12
82	Empirical Insights Into the Fate of Ammonia in Western U.S. Wildfire Smoke Plumes. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033730.	3.3	12
83	Spatial and temporal variability of trace gas columns derived from WRF/Chem regional model output: Planning for geostationary observations of atmospheric composition. Atmospheric Environment, 2015, 118, 28-44.	4.1	11
84	Estimator of Surface Ozone Using Formaldehyde and Carbon Monoxide Concentrations Over the Eastern United States in Summer. Journal of Geophysical Research D: Atmospheres, 2018, 123, 7642-7655.	3.3	11
85	Novel Analysis to Quantify Plume Crosswind Heterogeneity Applied to Biomass Burning Smoke. Environmental Science & Technology, 2021, 55, 15646-15657.	10.0	11
86	Evaluation of Secondary Organic Aerosol (SOA) Simulations for Seoul, Korea. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	10
87	Transport in the subtropical lowermost stratosphere during the Cirrus Regional Study of Tropical Anvils and Cirrus Layersâ€"Florida Area Cirrus Experiment. Journal of Geophysical Research, 2007, 112, .	3.3	9
88	Evaluation of deep convective transport in storms from different convective regimes during the DC3 field campaign using WRFâ€Chem with lightning data assimilation. Journal of Geophysical Research D: Atmospheres, 2017, 122, 7140-7163.	3.3	9
89	An Inversion Framework for Optimizing Nonâ€Methane VOC Emissions Using Remote Sensing and Airborne Observations in Northeast Asia During the KORUSâ€AQ Field Campaign. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	8
90	Comparison of Airborne Reactive Nitrogen Measurements During WINTER. Journal of Geophysical Research D: Atmospheres, 2019, 124, 10483-10502.	3.3	7

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91	Evidence of Nighttime Production of Organic Nitrates During SEAC 4 RS, FRAPPÃ‰, and KORUSâ€AQ. Geophysical Research Letters, 2020, 47, e2020GL087860.	4.0	7
92	Comprehensive evaluations of diurnal NO₂ measurements during DISCOVER-AQ 2011: effects of resolution-dependent representation of NO_{<i>x</i>} emissions. Atmospheric Chemistry and Physics, 2021, 21, 11133-11160.	4.9	7
93	Spatially Resolved Photochemistry Impacts Emissions Estimates in Fresh Wildfire Plumes. Geophysical Research Letters, 2021, 48, e2021GL095443.	4.0	7
94	Wildfire-driven changes in the abundance of gas-phase pollutants in the city of Boise, ID during summer 2018. Atmospheric Pollution Research, 2022, 13, 101269.	3.8	5