Andrew J Weinheimer

List of Publications by Year in Descending Order

92 papers	4,606 citations	35 h-index	66 g-index
96 ext. papers	5,274 ext. citations	5.7 avg, IF	4.51 L-index

#	Paper	IF	Citations
92	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	4.5	0
91	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	6.8	8
90	Novel Analysis to Quantify Plume Crosswind Heterogeneity Applied to Biomass Burning Smoke. *Environmental Science & Technology*, **2021**, 55, 15646-15657	10.3	2
89	Spatially Resolved Photochemistry Impacts Emissions Estimates in Fresh Wildfire Plumes. *Geophysical Research Letters*, **2021**, 48, e2021GL095443	4.9	1
88	Empirical Insights Into the Fate of Ammonia in Western U.S. Wildfire Smoke Plumes. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD033730	4.4	4
87	Emissions of Reactive Nitrogen From Western U.S. Wildfires During Summer 2018. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD032657	4.4	14
86	Daytime Oxidized Reactive Nitrogen Partitioning in Western U.S. Wildfire Smoke Plumes. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD033484	4.4	18
85	Variability and Time of Day Dependence of Ozone Photochemistry in Western Wildfire Plumes. *Environmental Science & Technology*, **2021**, 55, 10280-10290	10.3	9
84	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	6.8	1
83	Evidence of Nighttime Production of Organic Nitrates During SEAC4RS, FRAPP and KORUS-AQ. *Geophysical Research Letters*, **2020**, 47, e2020GL087860	4.9	2
82	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	5.3	35
81	HONO Emissions from Western U.S. Wildfires Provide Dominant Radical Source in Fresh Wildfire Smoke. *Environmental Science & Technology*, **2020**, 54, 5954-5963	10.3	26
80	Observation-based modeling of ozone chemistry in the Seoul metropolitan area during the Korea-United States Air Quality Study (KORUS-AQ). *Elementa*, **2020**, 8,	3.6	19
79	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	6.8	15
78	Rates of Wintertime Atmospheric SO2 Oxidation based on Aircraft Observations during Clear-Sky Conditions over the Eastern United States. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 6630-6649	4.4	8
77	Comparison of Airborne Reactive Nitrogen Measurements During WINTER. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 10483-10502	4.4	4
76	Evaluation of simulated O3 production efficiency during the KORUS-AQ campaign: Implications for anthropogenic NOx emissions in Korea. *Elementa*, **2019**, 7,	3.6	22

75	First Top-Down Estimates of Anthropogenic NOx Emissions Using High-Resolution Airborne Remote Sensing Observations. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 3269-3284	4.4	15
74	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	4.4	69
73	Characterizing CO and NOy 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	4.4	10
72	Wintertime Overnight NOx Removal in a Southeastern United States Coal-fired Power Plant Plume: A Model for Understanding Winter NOx Processing and its Implications. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 1412-1425	4.4	13
71	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	11.5	86
70	Flight Deployment of a High-Resolution Time-of-Flight Chemical Ionization Mass Spectrometer: Observations of Reactive Halogen and Nitrogen Oxide Species. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 7670	4.4	25
69	NOx Lifetime and NOy Partitioning During WINTER. *Journal of Geophysical Research D: Atmospheres* , **2018**, 123, 9813-9827	4.4	32
68	Modeling NHNO Over the San Joaquin Valley During the 2013 DISCOVER-AQ Campaign. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 4727-4745	4.4	15
67	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	4	24
66	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	4.4	24
65	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	4.4	32
64	Airborne Observations of Reactive Inorganic Chlorine and Bromine Species in the Exhaust of Coal-Fired Power Plants. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 11225-11237	4.4	21
63	Stratospheric Injection of Brominated Very Short-Lived Substances: Aircraft Observations in the Western Pacific and Representation in Global Models. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 5690-5719	4.4	30
62	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	4.4	9
61	The Convective Transport of Active Species in the Tropics (CONTRAST) Experiment. *Bulletin of the American Meteorological Society*, **2017**, 98, 106-128	6.1	40
60	Using observations and source specific model tracers to characterize pollutant transport during FRAPP and DISCOVER-AQ. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 10510-10538	4.4	18
59	New insights into the column CH2O/NO2 ratio as an indicator of near-surface ozone sensitivity. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 8885-8907	4.4	49
58	Formaldehyde in the Tropical Western Pacific: Chemical sources and sinks, convective transport, and representation in CAM-Chem and the CCMI models. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 11201-11226	4.4	21

57	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	4.4	24
56	Large biogenic contribution to boundary layer O3-CO regression slope in summer. *Geophysical Research Letters*, **2017**, 44, 7061-7068	4.9	12
55	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	6.8	15
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	6.8	22
53	Evaluation of deep convective transport in storms from different convective regimes during the DC3 field campaign using WRF-Chem with lightning data assimilation. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 7140-7163	4.4	7
52	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	4.4	27
51	Airborne quantification of upper tropospheric NOx production from lightning in deep convective storms over the United States Great Plains. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 2002-2028	4.4	24
50	Airborne measurements of BrO and the sum of HOBr and Br2 over the Tropical West Pacific from 1 to 15 km during the CONvective TRansport of Active Species in the Tropics (CONTRAST) experiment. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 12,560-12,578	4.4	15
49	Large vertical gradient of reactive nitrogen oxides in the boundary layer: Modeling analysis of DISCOVER-AQ 2011 observations. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 1922-1934	4.4	33
48	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	6.8	58
47	Impacts of the Denver Cyclone on regional air quality and aerosol formation in the Colorado Front Range during FRAPP□2014. *Atmospheric Chemistry and Physics*, **2016**, 16, 12039-12058	6.8	19
46	On the effectiveness of nitrogen oxide reductions as a control over ammonium nitrate aerosol. *Atmospheric Chemistry and Physics*, **2016**, 16, 2575-2596	6.8	41
45	Simulating reactive nitrogen, carbon monoxide, and ozone in California during ARCTAS-CARB 2008 with high wildfire activity. *Atmospheric Environment*, **2016**, 128, 28-44	5.3	19
44	A pervasive role for biomass burning in tropical high ozone/low water structures. *Nature Communications*, **2016**, 7, 10267	17.4	27
43	Frequency and Impact of Summertime Stratospheric Intrusions over Maryland during DISCOVER-AQ (2011): New Evidence from NASA's GEOS-5 Simulations. *Journal of Geophysical Research D: Atmospheres*, **2016**, Volume 121, 3687-3706	4.4	40
42	An observationally constrained evaluation of the oxidative capacity in the tropical western Pacific troposphere. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 7461-7488	4.4	17
41	Formaldehyde column density measurements as a suitable pathway to estimate near-surface ozone tendencies from space. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 13088-13112	4.4	14
40	Arctic springtime observations of volatile organic compounds during the OASIS-2009 campaign. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 9789-9813	4.4	10

39	Mercury Emission Ratios from Coal-Fired Power Plants in the Southeastern United States during NOMADSS. *Environmental Science & Technology*, **2015**, 49, 10389-97	10.3	29
38	Ozone profiles in the Baltimore-Washington region (2006-2011): satellite comparisons and DISCOVER-AQ observations. *Journal of Atmospheric Chemistry*, **2015**, 72, 393-422	3.2	19
37	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	5.3	10
36	Bimodal distribution of free tropospheric ozone over the tropical western Pacific revealed by airborne observations. *Geophysical Research Letters*, **2015**, 42, 7844-7851	4.9	17
35	The Deep Convective Clouds and Chemistry (DC3) Field Campaign. *Bulletin of the American Meteorological Society*, **2015**, 96, 1281-1309	6.1	140
34	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	5.3	36
33	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	4.4	54
32	High levels of molecular chlorine in the Arctic atmosphere. *Nature Geoscience*, **2014**, 7, 91-94	18.3	79
31	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	5.3	92
30	Observations of total RONO₂ over the boreal forest: NO_x sinks and HNO₃ sources. *Atmospheric Chemistry and Physics*, **2013**, 13, 4543-4562	6.8	57
29	Emission characteristics of black carbon in anthropogenic and biomass burning plumes over California during ARCTAS-CARB 2008. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		60
28	Observations of inorganic bromine (HOBr, BrO, and Br2) speciation at Barrow, Alaska, in spring 2009. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		58
27	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	6.8	33
26	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	6.8	55
25	Emissions of black carbon, organic, and inorganic aerosols from biomass burning in North America and Asia in 2008. *Journal of Geophysical Research*, **2011**, 116,		166
24	Patterns of CO2 and radiocarbon across high northern latitudes during International Polar Year 2008. *Journal of Geophysical Research*, **2011**, 116,		48
23	A comparison of Arctic BrO measurements by chemical ionization mass spectrometry and long path-differential optical absorption spectroscopy. *Journal of Geophysical Research*, **2011**, 116,		93
22	Effects of aging on organic aerosol from open biomass burning smoke in aircraft and laboratory studies. *Atmospheric Chemistry and Physics*, **2011**, 11, 12049-12064	6.8	418

21	Global and regional effects of the photochemistry of CH₃O₂NO₂: evidence from ARCTAS. *Atmospheric Chemistry and Physics*, **2011**, 11, 4209-4219	6.8	41
20	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	6.8	178
19	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	6.8	86
18	A complete dynamical ozone budget measured in the tropical marine boundary layer during PASE. *Journal of Atmospheric Chemistry*, **2011**, 68, 55-70	3.2	17
17	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	6.8	188
16	Characterization of trace gases measured over Alberta oil sands mining operations: 76 speciated C₂–C₁₀ volatile organic compounds (VOCs), CO₂, CH₄, CO, NO, NO₂, NO_y, O₃ and SO₂.	6.8	172
15	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	6.8	279
14	Chemistry of hydrogen oxide radicals (HO_x) in the Arctic troposphere in spring. *Atmospheric Chemistry and Physics*, **2010**, 10, 5823-5838	6.8	184
13	Transport in the subtropical lowermost stratosphere during the Cirrus Regional Study of Tropical Anvils and Cirrus Layers–Florida Area Cirrus Experiment. *Journal of Geophysical Research*, **2007**, 112,		9
12	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,		18
11	Fraction and composition of NOy transported in air masses lofted from the North American continental boundary layer. *Journal of Geophysical Research*, **2004**, 109,		35
10	Nitric acid uptake on subtropical cirrus cloud particles. *Journal of Geophysical Research*, **2004**, 109, n/a-n/a		44
9	Ozone depletion events observed in the high latitude surface layer during the TOPSE aircraft program. *Journal of Geophysical Research*, **2003**, 108, TOP 4-1		67
8	Coupled evolution of BrOx-ClOx-HOx-NOx chemistry during bromine-catalyzed ozone depletion events in the arctic boundary layer. *Journal of Geophysical Research*, **2003**, 108,		72
7	Effect of petrochemical industrial emissions of reactive alkenes and NOx on tropospheric ozone formation in Houston, Texas. *Journal of Geophysical Research*, **2003**, 108,		225
6	Fast-response airborne in situ measurements of HNO3 during the Texas 2000 Air Quality Study. *Journal of Geophysical Research*, **2002**, 107, ACH 8-1		89
5	Observations of APAN during TexAQS 2000. *Geophysical Research Letters*, **2001**, 28, 4195-4198	4.9	26
4	Sources of HOx and production of ozone in the upper troposphere over the United States. *Geophysical Research Letters*, **1998**, 25, 1709-1712	4.9	88

3	Airborne in-situ OH and HO2 observations in the cloud-free troposphere and lower stratosphere during SUCCESS. *Geophysical Research Letters*, **1998**, 25, 1701-1704	4.9	88
2	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	4.9	88
1	Observations and Modeling of NOx Photochemistry and Fate in Fresh Wildfire Plumes. *ACS Earth and Space Chemistry*,	3.2	1