

Andrew J Weinheimer

List of Publications by Year in descending order

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94
papers

6,216
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61373

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98
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98
docs citations

98
times ranked

5585
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of aging on organic aerosol from open biomass burning smoke in aircraft and laboratory studies. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 12049-12064.	4.9	539
2	Investigation of the sources and processing of organic aerosol over the Central Mexican Plateau from aircraft measurements during MILAGRO. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 5257-5280.	4.9	331
3	Effect of petrochemical industrial emissions of reactive alkenes and NO _x on tropospheric ozone formation in Houston, Texas. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.2	267
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. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 9739-9760.	4.9	241
5	Chemistry of hydrogen oxide radicals (HO ₂) in the Arctic troposphere in spring. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 5823-5838.	4.9	228
6	Boreal forest fire emissions in fresh Canadian smoke plumes: C ₁₀ volatile organic compounds (VOCs), CO ₂ , CO, NO ₂ , NO, HCN and CH ₃ CN. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 6445-6463.	4.9	214
7	Emissions of black carbon, organic, and inorganic aerosols from biomass burning in North America and Asia in 2008. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.2	209
8	Characterization of trace gases measured over Alberta oil sands mining operations: 76 speciated C ₂ –C ₁₀ volatile organic compounds (VOCs), CO ₂ , CH ₄ , CO, NO, NO ₂ , NO _y , O ₃ and SO ₂ . <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 11931-11954.	4.9	202
9	Chemical feedbacks weaken the wintertime response of particulate sulfate and nitrate to emissions reductions over the eastern United States. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 8110-8115.	7.5	127
10	Measured and modeled CO and NO _y in DISCOVER-AQ: An evaluation of emissions and chemistry over the eastern US. <i>Atmospheric Environment</i> , 2014, 96, 78-87.	4.2	116
11	Heterogeneous N ₂ O ₅ Uptake During Winter: Aircraft Measurements During the 2015 WINTER Campaign and Critical Evaluation of Current Parameterizations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 4345-4372.	3.3	111
12	Comparison of chemical characteristics of 495 biomass burning plumes intercepted by the NASA DC-8 aircraft during the ARCTAS/CARB-2008 field campaign. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 13325-13337.	4.9	108
13	High levels of molecular chlorine in the Arctic atmosphere. <i>Nature Geoscience</i> , 2014, 7, 91-94.	11.7	107
14	A comparison of Arctic BrO measurements by chemical ionization mass spectrometry and long path-differential optical absorption spectroscopy. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.2	106
15	Meridional distributions of NO _x , NO _y , and other species in the lower stratosphere and upper troposphere during AASE II. <i>Geophysical Research Letters</i> , 1994, 21, 2583-2586.	3.9	103
16	Sources of HO _x and production of ozone in the upper troposphere over the United States. <i>Geophysical Research Letters</i> , 1998, 25, 1709-1712.	3.9	102
17	Airborne in-situ OH and HO ₂ observations in the cloud-free troposphere and lower stratosphere during SUCCESS. <i>Geophysical Research Letters</i> , 1998, 25, 1701-1704.	3.9	100
18	New insights into the column CH ₂ O/NO ₂ ratio as an indicator of near-surface ozone sensitivity. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 8885-8907.	3.3	98

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19	Fast-response airborne in situ measurements of HNO ₃ during the Texas 2000 Air Quality Study. <i>Journal of Geophysical Research</i> , 2002, 107, ACH 8-1.	3.2	95
20	Ozone production and its sensitivity to NO _x and VOCs: results from the DISCOVER-AQ field experiment, Houston 2013. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 14463-14474.	4.9	92
21	Coupled evolution of BrO _x -ClO _x -HO _x -NO _x chemistry during bromine-catalyzed ozone depletion events in the arctic boundary layer. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.2	86
22	Observations of total RONO ₂ over the boreal forest: NO _x sinks and HNO ₃ sources. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 4543-4562.	4.9	78
23	Ozone depletion events observed in the high latitude surface layer during the TOPSE aircraft program. <i>Journal of Geophysical Research</i> , 2003, 108, TOP 4-1.	3.2	76
24	Emission characteristics of black carbon in anthropogenic and biomass burning plumes over California during ARCTAS-CARB 2008. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.2	76
25	Revisiting the effectiveness of HCHO/NO ₂ 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. <i>Atmospheric Environment</i> , 2020, 224, 117341.	4.2	74
26	Observations of inorganic bromine (HOBr, BrO, and Br ₂) speciation at Barrow, Alaska, in spring 2009. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.2	71
27	Nitric acid uptake on subtropical cirrus cloud particles. <i>Journal of Geophysical Research</i> , 2004, 109, n/a-n/a.	3.2	69
28	Convective transport of water vapor into the lower stratosphere observed during double-tropopause events. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 10,941-10,958.	3.3	68
29	Analysis of satellite-derived Arctic tropospheric BrO columns in conjunction with aircraft measurements during ARCTAS and ARCPAC. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 1255-1285.	4.9	64
30	HONO Emissions from Western U.S. Wildfires Provide Dominant Radical Source in Fresh Wildfire Smoke. <i>Environmental Science & Technology</i> , 2020, 54, 5954-5963.	10.3	62
31	Patterns of CO ₂ and radiocarbon across high northern latitudes during International Polar Year 2008. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.2	59
32	Nitrogen Oxides Emissions, Chemistry, Deposition, and Export Over the Northeast United States During the WINTER Aircraft Campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 12,368.	3.3	56
33	On the effectiveness of nitrogen oxide reductions as a control over ammonium nitrate aerosol. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 2575-2596.	4.9	55
34	NO _x Lifetime and NO _y Partitioning During WINTER. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 9813-9827.	3.3	53
35	Global and regional effects of the photochemistry of CH ₃ O ₂ and NO ₂ evidence from ARCTAS. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 4209-4219.		
36	Frequency and impact of summertime stratospheric intrusions over Maryland during DISCOVER-AQ (2011): New evidence from NASA's GEOS-5 simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 3687-3706.	3.3	51

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37	Relationship between column-density and surface mixing ratio: Statistical analysis of O3 and NO2 data from the July 2011 Maryland DISCOVER-AQ mission. <i>Atmospheric Environment</i> , 2014, 92, 429-441.	4.2	46
38	Emissions of Reactive Nitrogen From Western U.S. Wildfires During Summer 2018. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD032657.	3.3	46
39	Characteristics of tropospheric ozone depletion events in the Arctic spring: analysis of the ARCTAS, ARCPAC, and ARCIONS measurements and satellite BrO observations. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 9909-9922.	4.9	44
40	Daytime Oxidized Reactive Nitrogen Partitioning in Western U.S. Wildfire Smoke Plumes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033484.	3.3	44
41	The effect of entrainment through atmospheric boundary layer growth on observed and modeled surface ozone in the Colorado Front Range. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 6075-6093.	3.3	43
42	Nitrogen dioxide and formaldehyde measurements from the GEOstationary Coastal and Air Pollution Events (GEO-CAPE) Airborne Simulator over Houston, Texas. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 5941-5964.	3.1	43
43	Flight Deployment of a High-Resolution Time-of-Flight Chemical Ionization Mass Spectrometer: Observations of Reactive Halogen and Nitrogen Oxide Species. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 7670-7686.	3.3	41
44	Large vertical gradient of reactive nitrogen oxides in the boundary layer: Modeling analysis of DISCOVER-AQ 2011 observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 1922-1934.	3.3	40
45	Nighttime and daytime dark oxidation chemistry in wildfire plumes: an observation and model analysis of FIREX-AQ aircraft data. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 16293-16317.	4.9	40
46	Stratospheric Injection of Brominated Very Short-Lived Substances: Aircraft Observations in the Western Pacific and Representation in Global Models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 5690-5719.	3.3	39
47	Variability and Time of Day Dependence of Ozone Photochemistry in Western Wildfire Plumes. <i>Environmental Science & Technology</i> , 2021, 55, 10280-10290.	10.3	39
48	Evaluation of simulated O3 production efficiency during the KORUS-AQ campaign: Implications for anthropogenic NOx emissions in Korea. <i>Elementa</i> , 2019, 7, .	3.2	39
49	Fraction and composition of NOy transported in air masses lofted from the North American continental boundary layer. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.2	37
50	Mercury Emission Ratios from Coal-Fired Power Plants in the Southeastern United States during NOMADSS. <i>Environmental Science & Technology</i> , 2015, 49, 10389-10397.	10.3	37
51	A pervasive role for biomass burning in tropical high ozone/low water structures. <i>Nature Communications</i> , 2016, 7, 10267.	13.0	37
52	Formaldehyde in the Tropical Western Pacific: Chemical Sources and Sinks, Convective Transport, and Representation in CAM-Chem and the CCM1 Models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 11201-11226.	3.3	36
53	BrO and inferred Br profiles over the western Pacific: relevance of inorganic bromine sources and a minimum in the aged tropical tropopause layer. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 15245-15270.	4.9	36
54	Airborne Observations of Reactive Inorganic Chlorine and Bromine Species in the Exhaust of Coal-Fired Power Plants. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 11225-11237.	3.3	35

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55	Quantifying the contribution of thermally driven recirculation to a high-ozone event along the Colorado Front Range using lidar. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 10,377-10,390.	3.3	34
56	An inversion of NO _x and non-methane volatile organic compound (NMVOC) emissions using satellite observations during the KORUS-AQ campaign and implications for surface ozone over East Asia. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 9837-9854.	4.9	34
57	Observation-based modeling of ozone chemistry in the Seoul metropolitan area during the Korea-United States Air Quality Study (KORUS-AQ). <i>Elementa</i> , 2020, 8, .	3.2	33
58	ClNO ₂ Yields From Aircraft Measurements During the 2015 WINTER Campaign and Critical Evaluation of the Current Parameterization. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 12,994.	3.3	32
59	Observations of APAN during TexAQs 2000. <i>Geophysical Research Letters</i> , 2001, 28, 4195-4198.	3.9	31
60	Airborne quantification of upper tropospheric NO _x production from lightning in deep convective storms over the United States Great Plains. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 2002-2028.	3.3	28
61	Simulating reactive nitrogen, carbon monoxide, and ozone in California during ARCTAS-CARB 2008 with high wildfire activity. <i>Atmospheric Environment</i> , 2016, 128, 28-44.	4.2	27
62	Impacts of the Denver Cyclone on regional air quality and aerosol formation in the Colorado Front Range during FRAPP ²⁰¹⁴ . <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 12039-12058.	4.9	24
63	Using Observations and Source-Specific Model Tracers to Characterize Pollutant Transport During FRAPP ²⁰¹⁴ and DISCOVER ^{AQ} . <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 10510-10538.	3.3	24
64	A complete dynamical ozone budget measured in the tropical marine boundary layer during PASE. <i>Journal of Atmospheric Chemistry</i> , 2011, 68, 55-70.	3.1	22
65	First Top-Down Estimates of Anthropogenic NO _x Emissions Using High-Resolution Airborne Remote Sensing Observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 3269-3284.	3.3	22
66	Quantifying the impact of the North American monsoon and deep midlatitude convection on the subtropical lowermost stratosphere using in situ measurements. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.2	20
67	Ozone profiles in the Baltimore-Washington region (2006–2011): satellite comparisons and DISCOVER-AQ observations. <i>Journal of Atmospheric Chemistry</i> , 2015, 72, 393-422.	3.1	20
68	An observationally constrained evaluation of the oxidative capacity in the tropical western Pacific troposphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 7461-7488.	3.3	20
69	Arctic springtime observations of volatile organic compounds during the OASIS ²⁰⁰⁹ campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 9789-9813.	3.3	20
70	Bimodal distribution of free tropospheric ozone over the tropical western Pacific revealed by airborne observations. <i>Geophysical Research Letters</i> , 2015, 42, 7844-7851.	3.9	19
71	Formaldehyde column density measurements as a suitable pathway to estimate near-surface ozone tendencies from space. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 13088-13112.	3.3	19
72	Higher measured than modeled ozone production at increased NO _x levels in the Colorado Front Range. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 11273-11292.	4.9	19

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73	Observations and Modeling of NO _x Photochemistry and Fate in Fresh Wildfire Plumes. ACS Earth and Space Chemistry, 2021, 5, 2652-2667.	2.8	19
74	Effects of Fire Diurnal Variation and Plume Rise on U.S. Air Quality During FIREX-AQ and WE-CAN Based on the Multi-Scale Infrastructure for Chemistry and Aerosols (MUSICA _{VO}). Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	19
75	Modeling NH ₄ NO ₃ Over the San Joaquin Valley During the 2013 DISCOVER-AQ Campaign. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4727-4745.	3.3	18
76	Characterizing CO and NO _y 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	17
77	Airborne measurements of BrO and the sum of HOBr and Br ₂ 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.	3.3	16
78	Large biogenic contribution to boundary layer O ₃ -CO regression slope in summer. Geophysical Research Letters, 2017, 44, 7061-7068.	3.9	16
79	Novel Analysis to Quantify Plume Crosswind Heterogeneity Applied to Biomass Burning Smoke. Environmental Science & Technology, 2021, 55, 15646-15657.	10.3	16
80	Wintertime Overnight NO _x Removal in a Southeastern United States Coal-fired Power Plant Plume: A Model for Understanding Winter NO _x Processing and its Implications. Journal of Geophysical Research D: Atmospheres, 2018, 123, 1412-1425.	3.3	15
81	Rates of Wintertime Atmospheric SO ₂ Oxidation based on Aircraft Observations during Clear-Sky Conditions over the Eastern United States. Journal of Geophysical Research D: Atmospheres, 2019, 124, 6630-6649.	3.3	14
82	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	13
83	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	13
84	Direct Constraints on Secondary HONO Production in Aged Wildfire Smoke From Airborne Measurements Over the Western US. Geophysical Research Letters, 2022, 49, .	3.9	13
85	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.	4.2	11
86	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.	3.3	11
87	Comprehensive evaluations of diurnal NO ₂ measurements during DISCOVER-AQ 2011: effects of resolution-dependent representation of NO ₂ emissions. Atmospheric Chemistry and Physics, 2021, 21, 11133-11160.	4.9	11
88	An Inversion Framework for Optimizing Non-Methane VOC Emissions Using Remote Sensing and Airborne Observations in Northeast Asia During the KORUS-AQ Field Campaign. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	11
89	Evaluation of Secondary Organic Aerosol (SOA) Simulations for Seoul, Korea. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.7	10
90	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, .	3.2	9

#	ARTICLE	IF	CITATIONS
91	Evidence of Nighttime Production of Organic Nitrates During SEAC ⁴ RS, FRAPP ^o , and KORUS ^o AQ. Geophysical Research Letters, 2020, 47, e2020GL087860.	3.9	9
92	Spatially Resolved Photochemistry Impacts Emissions Estimates in Fresh Wildfire Plumes. Geophysical Research Letters, 2021, 48, e2021GL095443.	3.9	9
93	Comparison of Airborne Reactive Nitrogen Measurements During WINTER. Journal of Geophysical Research D: Atmospheres, 2019, 124, 10483-10502.	3.3	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.	3.9	5