

# A Fried

## List of Publications by Year in descending order

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78  
papers

4,793  
citations

87226

37  
h-index

103468

64  
g-index

83  
all docs

83  
docs citations

83  
times ranked

4253  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparison of Urban Air Quality Simulations During the KORUS-AQ Campaign With Regionally Refined Versus Global Uniform Grids in the Multi-Scale Infrastructure for Chemistry and Aerosols (MUSICA) Version 0. <i>Journal of Advances in Modeling Earth Systems</i> , 2023, 15, .	3.7	5
2	Emission Factors for Crop Residue and Prescribed Fires in the Eastern US During FIREX-AQ. <i>Journal of Geophysical Research D: Atmospheres</i> , 2023, 128, .	3.3	2
3	The Role of Snow in Controlling Halogen Chemistry and Boundary Layer Oxidation During Arctic Spring: A 1D Modeling Case Study. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	3.3	6
4	Photochemical evolution of the 2013 California Rim Fire: synergistic impacts of reactive hydrocarbons and enhanced oxidants. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 4253-4275.	4.9	11
5	Can Column Formaldehyde Observations Inform Air Quality Monitoring Strategies for Ozone and Related Photochemical Oxidants?. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	3.3	5
6	The Korea-United States Air Quality (KORUS-AQ) field study. <i>Elementa</i> , 2021, 9, 1-27.	3.2	96
7	Analysis of Oil and Gas Ethane and Methane Emissions in the Southcentral and Eastern United States Using Four Seasons of Continuous Aircraft Ethane Measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD034194.	3.3	18
8	Atmospheric Carbon and Transport in America (ACT-America) Data Sets: Description, Management, and Delivery. <i>Earth and Space Science</i> , 2021, 8, e2020EA001634.	2.6	16
9	Multispecies Assessment of Factors Influencing Regional CO <sub>2</sub> and CH <sub>4</sub> Enhancements During the Winter 2017 ACT-America Campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031339.	3.3	25
10	Vertical Transport, Entrainment, and Scavenging Processes Affecting Trace Gases in a Modeled and Observed SEAC 4 RS Case Study. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031957.	3.3	5
11	Revisiting the effectiveness of HCHO/NO <sub>2</sub> 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
12	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
13	An inversion of NO <sub>x</sub> 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
14	Autonomous airborne mid-infrared spectrometer for high-precision measurements of ethane during the NASA ACT-America studies. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 6095-6112.	3.1	2
15	Estimating Methane Emissions From Underground Coal and Natural Gas Production in Southwestern Pennsylvania. <i>Geophysical Research Letters</i> , 2019, 46, 4531-4540.	3.9	34
16	Forward Modeling and Optimization of Methane Emissions in the South Central United States Using Aircraft Transects Across Frontal Boundaries. <i>Geophysical Research Letters</i> , 2019, 46, 13564-13573.	3.9	18
17	Atmospheric Implications of Large C <sub>2</sub> -C <sub>5</sub> Alkane Emissions From the U.S. Oil and Gas Industry. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 1148-1169.	3.3	12
18	Evaluation of simulated O <sub>3</sub> production efficiency during the KORUS-AQ campaign: Implications for anthropogenic NO <sub>x</sub> emissions in Korea. <i>Elementa</i> , 2019, 7, .	3.2	39

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19	Characterizing CO and NO <sub>x</sub> Sources and Relative Ambient Ratios in the Baltimore Area Using Ambient Measurements and Source Attribution Modeling. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 3304-3320.	3.3	17
20	Impacts of physical parameterization on prediction of ethane concentrations for oil and gas emissions in WRF-Chem. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 16863-16883.	4.9	11
21	High-resolution inversion of OMI formaldehyde columns to quantify isoprene emission on ecosystem-relevant scales: application to the southeast US. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 5483-5497.	4.9	67
22	Sources and characteristics of summertime organic aerosol in the Colorado Front Range: perspective from measurements and WRF-Chem modeling. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 8293-8312.	4.9	13
23	Estimator of Surface Ozone Using Formaldehyde and Carbon Monoxide Concentrations Over the Eastern United States in Summer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 7642-7655.	3.3	13
24	Effects of Scavenging, Entrainment, and Aqueous Chemistry on Peroxides and Formaldehyde in Deep Convective Outflow Over the Central and Southeast United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 7594-7614.	3.3	16
25	Modeling NH <sub>4</sub> NO <sub>3</sub> Over the San Joaquin Valley During the 2013 DISCOVER <sup>+</sup> AQ Campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 4727-4745.	3.3	18
26	Contrasting aerosol refractive index and hygroscopicity in the inflow and outflow of deep convective storms: Analysis of airborne data from DC3. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 4565-4577.	3.3	10
27	Using Observations and Source-Specific Model Tracers to Characterize Pollutant Transport During FRAPP <sup>+</sup> and DISCOVER <sup>+</sup> AQ. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 10510-10538.	3.3	24
28	New insights into the column CH <sub>2</sub> O/NO <sub>2</sub> ratio as an indicator of near-surface ozone sensitivity. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 8885-8907.	3.3	98
29	Revisiting global fossil fuel and biofuel emissions of ethane. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 2493-2512.	3.3	48
30	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
31	Convective transport of formaldehyde to the upper troposphere and lower stratosphere and associated scavenging in thunderstorms over the central United States during the 2012 <sup>+</sup> DC3 study. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 7430-7460.	3.3	30
32	Large vertical gradient of reactive nitrogen oxides in the boundary layer: Modeling analysis of DISCOVER <sup>+</sup> AQ 2011 observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 1922-1934.	3.3	40
33	Observing atmospheric formaldehyde (HCHO) from space: validation and intercomparison of six retrievals from four satellites (OMI, GOME2A, GOME2B, OMPS) with SEAC <sup>+</sup> aircraft observations over the southeast US. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 13477-13490.	4.9	104
34	Convective transport and scavenging of peroxides by thunderstorms observed over the central U.S. during DC3. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 4272-4295.	3.3	24
35	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
36	Wet scavenging of soluble gases in DC3 deep convective storms using WRF-Chem simulations and aircraft observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 4233-4257.	3.3	31

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37	Spatial and temporal variability of trace gas columns derived from WRF/Chem regional model output: Planning for geostationary observations of atmospheric composition. <i>Atmospheric Environment</i> , 2015, 118, 28-44.	4.2	11
38	Interactions of bromine, chlorine, and iodine photochemistry during ozone depletions in Barrow, Alaska. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 9651-9679.	4.9	32
39	The NO <sub>2</sub> dependence of bromine chemistry in the Arctic atmospheric boundary layer. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 10799-10809.	4.9	23
40	Compact highly sensitive multi-species airborne mid-IR spectrometer. <i>Applied Physics B: Lasers and Optics</i> , 2015, 119, 119-131.	2.1	82
41	High levels of molecular chlorine in the Arctic atmosphere. <i>Nature Geoscience</i> , 2014, 7, 91-94.	11.7	107
42	Measured and modeled CO and NO <sub>y</sub> in DISCOVER-AQ: An evaluation of emissions and chemistry over the eastern US. <i>Atmospheric Environment</i> , 2014, 96, 78-87.	4.2	116
43	Characterization of soluble bromide measurements and a case study of BrO observations during ARCTAS. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 1327-1338.	4.9	28
44	Impact of the deep convection of isoprene and other reactive trace species on radicals and ozone in the upper troposphere. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 1135-1150.	4.9	34
45	Primary and secondary sources of formaldehyde in urban atmospheres: Houston Texas region. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 3273-3288.	4.9	160
46	Observations of inorganic bromine (HOBr, BrO, and Br <sub>2</sub> ) speciation at Barrow, Alaska, in spring 2009. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.2	71
47	Nitrous acid (HONO) during polar spring in Barrow, Alaska: A net source of OH radicals?. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.2	71
48	Boreal forest fire emissions in fresh Canadian smoke plumes: C <sub>10</sub> volatile organic compounds (VOCs), CO <sub>2</sub> , CO, NO <sub>2</sub> , NO, HCN and CH <sub>3</sub> CN. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 6445-6463.	4.9	214
49	Detailed comparisons of airborne formaldehyde measurements with box models during the 2006 INTEX-B and MILAGRO campaigns: potential evidence for significant impacts of unmeasured and multi-generation volatile organic carbon compounds. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 11867-11894.	4.9	46
50	Difference frequency generation spectrometer for simultaneous multispecies detection. <i>Optics Express</i> , 2010, 18, 27670.	3.3	27
51	Scattering of pulsed plane wave from a symmetrical groove doublet configuration. <i>Optics Express</i> , 2010, 18, 27682.	3.3	1
52	First demonstration of a high performance difference frequency spectrometer on airborne platforms. <i>Optics Express</i> , 2007, 15, 13476.	3.3	75
53	Hydrogen peroxide, methyl hydroperoxide, and formaldehyde over North America and the North Atlantic. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.2	58
54	Surface and lightning sources of nitrogen oxides over the United States: Magnitudes, chemical evolution, and outflow. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.2	285

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55	Summertime influence of Asian pollution in the free troposphere over North America. Journal of Geophysical Research, 2007, 112, .	3.2	88
56	Ultra-high-precision mid-IR spectrometer II: system description and spectroscopic performance. Applied Physics B: Lasers and Optics, 2006, 85, 207-218.	2.1	72
57	Vertical profiles of HDO/H <sub>2</sub> O in the troposphere. Journal of Geophysical Research, 2005, 110, .	3.2	40
58	Photochemistry in the Arctic Free Troposphere: Ozone Budget and Its Dependence on Nitrogen Oxides and the Production Rate of Free Radicals. Journal of Atmospheric Chemistry, 2004, 47, 107-138.	3.1	14
59	Analysis of the atmospheric distribution, sources, and sinks of oxygenated volatile organic chemicals based on measurements over the Pacific during TRACE-P. Journal of Geophysical Research, 2004, 109, .	3.2	234
60	Testing fast photochemical theory during TRACE-P based on measurements of OH, HO <sub>2</sub> , and CH <sub>2</sub> O. Journal of Geophysical Research, 2004, 109, .	3.2	72
61	Evaluation of GOME satellite measurements of tropospheric NO <sub>2</sub> and HCHO using regional data from aircraft campaigns in the southeastern United States. Journal of Geophysical Research, 2004, 109, .	3.2	114
62	Ozone depletion events observed in the high latitude surface layer during the TOPSE aircraft program. Journal of Geophysical Research, 2003, 108, TOP 4-1.	3.2	76
63	Steady state free radical budgets and ozone photochemistry during TOPSE. Journal of Geophysical Research, 2003, 108, .	3.2	60
64	Tunable diode laser measurements of formaldehyde during the TOPSE 2000 study: Distributions, trends, and model comparisons. Journal of Geophysical Research, 2003, 108, .	3.2	63
65	Signatures of terminal alkene oxidation in airborne formaldehyde measurements during TexAQs 2000. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.2	128
66	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, .	3.2	86
67	Design and performance of a tunable diode laser absorption spectrometer for airborne formaldehyde measurements. Journal of Geophysical Research, 2003, 108, .	3.2	55
68	Effect of petrochemical industrial emissions of reactive alkenes and NOx on tropospheric ozone formation in Houston, Texas. Journal of Geophysical Research, 2003, 108, .	3.2	267
69	Large-scale ozone and aerosol distributions, air mass characteristics, and ozone fluxes over the western Pacific Ocean in late winter/early spring. Journal of Geophysical Research, 2003, 108, .	3.2	46
70	Airborne tunable diode laser measurements of formaldehyde during TRACE-P: Distributions and box model comparisons. Journal of Geophysical Research, 2003, 108, .	3.2	68
71	OH and HO <sub>2</sub> concentrations, sources, and loss rates during the Southern Oxidants Study in Nashville, Tennessee, summer 1999. Journal of Geophysical Research, 2003, 108, .	3.2	178
72	Peroxy radical behavior during the Transport and Chemical Evolution over the Pacific (TRACE-P) campaign as measured aboard the NASA P-3B aircraft. Journal of Geophysical Research, 2003, 108, .	3.2	48

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73	Comparisons of box model calculations and measurements of formaldehyde from the 1997 North Atlantic Regional Experiment. <i>Journal of Geophysical Research</i> , 2002, 107, ACH 3-1.	3.2	44
74	Ozone production rates as a function of NOx abundances and HOx production rates in the Nashville urban plume. <i>Journal of Geophysical Research</i> , 2002, 107, ACH 7-1.	3.2	214
75	Tunable diode laser studies of the reaction of Cl atoms with CH <sub>3</sub> CHO. <i>International Journal of Chemical Kinetics</i> , 1999, 31, 766-775.	1.6	22
76	Laboratory, ground-based, and airborne tunable diode laser systems: performance characteristics and applications in atmospheric studies. <i>Applied Physics B: Lasers and Optics</i> , 1998, 67, 317-330.	2.1	99
77	Tunable diode laser absorption spectroscopy for measuring atmospheric molecular species. , 0, , .		0
78	Effect of Marine and Land Convection on Wet Scavenging of Ozone Precursors Observed during a SEAC <sup>4</sup> RS case study. <i>Journal of Geophysical Research D: Atmospheres</i> , 0, , .	3.3	1