Ilana B Pollack

List of Publications by Year in Descending Order

100 papers	3,933 citations	38 h-index	60 g-index
120 ext. papers	4,635 ext. citations	5.8 avg, IF	4.62 L-index

#	Paper	IF	Citations
100	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
99	Photochemical evolution of the 2013 California Rim Fire: synergistic impacts of reactive hydrocarbons and enhanced oxidants. *Atmospheric Chemistry and Physics*, **2022**, 22, 4253-4275	6.8	2
98	Machine Learning Uncovers Aerosol Size Information From Chemistry and Meteorology to Quantify Potential Cloud-Forming Particles. *Geophysical Research Letters*, **2021**, 48,	4.9	1
97	Cows as canaries: The effects of ambient air pollution exposure on milk production and somatic cell count in dairy cows. *Environmental Research*, **2021**, 112197	7.9	0
96	Seasonality and Source Apportionment of Nonmethane Volatile Organic Compounds at Boulder Reservoir, Colorado, Between 2017 and 2019. *Journal of Geophysical Research D: Atmospheres*, **2021** , 126, e2020JD034234	4.4	2
95	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
94	Leveraging Field-Campaign Networks to Identify Sexual Harassment in Atmospheric Science and Pilot Promising Interventions. *Bulletin of the American Meteorological Society*, **2021**, 1-32	6.1	1
93	Quantifying Methane and Ozone Precursor Emissions from Oil and Gas Production Regions across the Contiguous US. *Environmental Science & Technology*, **2021**, 55, 9129-9139	10.3	3
92	Emissions of Reactive Nitrogen From Western U.S. Wildfires During Summer 2018. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD032657	4.4	14
91	Daytime Oxidized Reactive Nitrogen Partitioning in Western U.S. Wildfire Smoke Plumes. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD033484	4.4	18
90	Secondary organic aerosols from anthropogenic volatile organic compounds contribute substantially to air pollution mortality. *Atmospheric Chemistry and Physics*, **2021**, 21, 11201-11224	6.8	12
89	Weekend-Weekday Implications and the Impact of Wildfire Smoke on Ozone and Its Precursors at Boulder Reservoir, Colorado Between 2017 and 2019. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2021JD035221	4.4	1
88	Vertical Transport, Entrainment, and Scavenging Processes Affecting Trace Gases in a Modeled and Observed SEAC4RS Case Study. *Journal of Geophysical Research D: Atmospheres*, **2020**, 125, e2019JD031957	4.4	1
87	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
86	Errors in top-down estimates of emissions using a known source. *Atmospheric Chemistry and Physics* , **2020**, 20, 11855-11868	6.8	1
85	Inspiration, inoculation, and introductions are all critical to successful mentorship for undergraduate women pursuing geoscience careers. *Communications Earth & Environment*, **2020**, 1,	6.1	6
84	Seasonal Flux Measurements over a Colorado Pine Forest Demonstrate a Persistent Source of Organic Acids. *ACS Earth and Space Chemistry*, **2019**, 3, 2017-2032	3.2	11

83	Nighttime Chemical Transformation in Biomass Burning Plumes: A Box Model Analysis Initialized with Aircraft Observations. *Environmental Science & Technology*, **2019**, 53, 2529-2538	10.3	37
82	Acyl Peroxy Nitrates Link Oil and Natural Gas Emissions to High Ozone Abundances in the Colorado Front Range During Summer 2015. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 2336-2350	4.4	7
81	Hydrocarbon Removal in Power Plant Plumes Shows Nitrogen Oxide Dependence of Hydroxyl Radicals. *Geophysical Research Letters*, **2019**, 46, 7752-7760	4.9	5
80	Anthropogenic enhancements to production of highly oxygenated molecules from autoxidation. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 6641-6646	11.5	42
79	Role of Criegee Intermediates in Secondary Sulfate Aerosol Formation in Nocturnal Power Plant Plumes in the Southeast US. *ACS Earth and Space Chemistry*, **2019**, 3, 748-759	3.2	8
78	Evaluation of ambient ammonia measurements from a research aircraft using a closed-path QC-TILDAS operated with active continuous passivation. *Atmospheric Measurement Techniques*, **2019**, 12, 3717-3742	4	12
77	Simulating the Weekly Cycle of NOx-VOC-HOx-O3 Photochemical System in the South Coast of California During CalNex-2010 Campaign. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 3532-3555	4.4	1
76	Decadal changes in summertime reactive oxidized nitrogen and surface ozone over the Southeast United States. *Atmospheric Chemistry and Physics*, **2018**, 18, 2341-2361	6.8	24
75	Observed NO/NO2 Ratios in the Upper Troposphere Imply Errors in NO-NO2-O3 Cycling Kinetics or an Unaccounted NOx Reservoir. *Geophysical Research Letters*, **2018**, 45, 4466-4474	4.9	24
74	Secondary organic aerosol (SOA) yields from NO₃ radical + isoprene based on nighttime aircraft power plant plume transects. *Atmospheric Chemistry and Physics*, **2018**, 18, 11663-11682	6.8	30
73	Modeling Ozone in the Eastern U.S. using a Fuel-Based Mobile Source Emissions Inventory. *Environmental Science & Technology*, **2018**, 52, 7360-7370	10.3	37
72	Limited impact of sulfate-driven chemistry on black carbon aerosol aging in power plant plumes. *AIMS Environmental Science*, **2018**, 5, 195-215	1.9	1
71	Welcoming Women into the Geosciences. *Eos*, **2018**, 99,	1.5	2
70	Atmospheric oxidation in the presence of clouds during the Deep Convective Clouds and Chemistry (DC3) study. *Atmospheric Chemistry and Physics*, **2018**, 18, 14493-14510	6.8	8
69	Role modeling is a viable retention strategy for undergraduate women in the geosciences **2018**,		7
68	Development of a Fuel-Based Oil and Gas Inventory of Nitrogen Oxides Emissions. *Environmental Science & Technology*, **2018**, 52, 10175-10185	10.3	9
67	Summertime tropospheric ozone enhancement associated with a cold front passage due to stratosphere-to-troposphere transport and biomass burning: Simultaneous ground-based lidar and airborne measurements. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 1293-1311	4.4	12
66	Airborne measurements of western U.S. wildfire emissions: Comparison with prescribed burning and air quality implications. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 6108-6129	4.4	116

65	Promoting professional identity, motivation, and persistence: Benefits of an informal mentoring program for female undergraduate students. *PLoS ONE*, **2017**, 12, e0187531	3.7	44
64	Lightning NOx Emissions: Reconciling Measured and Modeled Estimates With Updated NOx Chemistry. *Geophysical Research Letters*, **2017**, 44, 9479-9488	4.9	36
63	Source characterization of volatile organic compounds in the Colorado Northern Front Range Metropolitan Area during spring and summer 2015. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 3595-3613	4.4	64
62	Transition from high- to low-NOx control of night-time oxidation in the southeastern US. *Nature Geoscience*, **2017**, 10, 490-495	18.3	39
61	Impact of evolving isoprene mechanisms on simulated formaldehyde: An inter-comparison supported by in situ observations from SENEX. *Atmospheric Environment*, **2017**, 164, 325-336	5.3	28
60	Changes in ozone and precursors during two aged wildfire smoke events in the Colorado Front Range in summer 2015. *Atmospheric Chemistry and Physics*, **2017**, 17, 10691-10707	6.8	32
59	The impact of aged wildfire smoke on atmospheric composition and ozone in the Colorado Front Range in summer 2015 **2017**,		2
58	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
57	HONO emission and production determined from airborne measurements over the Southeast U.S.. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 9237-9250	4.4	34
56	Enhanced formation of isoprene-derived organic aerosol in sulfur-rich power plant plumes during Southeast Nexus. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 11,137-11,153	4.4	38
55	Convective transport and scavenging of peroxides by thunderstorms observed over the central U.S. during DC3. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 4272-4295	4.4	20
54	Why do Models Overestimate Surface Ozone in the Southeastern United States?. *Atmospheric Chemistry and Physics*, **2016**, 16, 13561-13577	6.8	239
53	Formaldehyde production from isoprene oxidation across NO regimes. *Atmospheric Chemistry and Physics*, **2016**, 16, 2597-2610	6.8	88
52	Agricultural fires in the southeastern U.S. during SEAC4RS: Emissions of trace gases and particles and evolution of ozone, reactive nitrogen, and organic aerosol. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 7383-7414	4.4	71
51	Injection of lightning-produced NOx, water vapor, wildfire emissions, and stratospheric air to the UT/LS as observed from DC3 measurements. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 6638-6668	4.4	20
50	Evaluating N2O5 heterogeneous hydrolysis parameterizations for CalNex 2010. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 5051-5070	4.4	26
49	Observational Constraints on the Oxidation of NOx in the Upper Troposphere. *Journal of Physical Chemistry A*, **2016**, 120, 1468-78	2.8	20
48	Instrumentation and Measurement Strategy for the NOAA SENEX Aircraft Campaign as Part of the Southeast Atmosphere Study 2013. *Atmospheric Measurement Techniques*, **2016**, 9, 3063-3093	4	50

47	Observational constraints on glyoxal production from isoprene oxidation and its contribution to organic aerosol over the Southeast United States. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 9849-9861	4.4	38
46	Modeling the weekly cycle of NOx and CO emissions and their impacts on O3 in the Los Angeles-South Coast Air Basin during the CalNex 2010 field campaign. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 1340-1360	4.4	43
45	Convective transport of formaldehyde to the upper troposphere and lower stratosphere and associated scavenging in thunderstorms over the central United States during the 2012 DC3 study. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 7430-7460	4.4	23
44	Analysis of long-term observations of NOx and CO in megacities and application to constraining emissions inventories. *Geophysical Research Letters*, **2016**, 43, 9920-9930	4.9	55
43	Airborne measurements of the atmospheric emissions from a fuel ethanol refinery. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 4385-4397	4.4	14
42	Upper tropospheric ozone production from lightning NOx-impacted convection: Smoke ingestion case study from the DC3 campaign. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 2505-2523	4.4	68
41	Reassessing the ratio of glyoxal to formaldehyde as an indicator of hydrocarbon precursor speciation. *Atmospheric Chemistry and Physics*, **2015**, 15, 7571-7583	6.8	42
40	A large and ubiquitous source of atmospheric formic acid. *Atmospheric Chemistry and Physics*, **2015**, 15, 6283-6304	6.8	141
39	The Deep Convective Clouds and Chemistry (DC3) Field Campaign. *Bulletin of the American Meteorological Society*, **2015**, 96, 1281-1309	6.1	140
38	Quantifying sources and sinks of reactive gases in the lower atmosphere using airborne flux observations. *Geophysical Research Letters*, **2015**, 42, 8231-8240	4.9	38
37	Airborne measurements of organosulfates over the continental U.S. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 2990-3005	4.4	77
36	An investigation of ammonia and inorganic particulate matter in California during the CalNex campaign. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 1883-1902	4.4	63
35	Thunderstorms enhance tropospheric ozone by wrapping and shedding stratospheric air. *Geophysical Research Letters*, **2014**, 41, 7785-7790	4.9	49
34	Changes in nitrogen oxides emissions in California during 2005–2010 indicated from top-down and bottom-up emission estimates. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 12,928-12,952	4.4	14
33	WRF-Chem simulation of NOx and O3 in the L.A. basin during CalNex-2010. *Atmospheric Environment*, **2013**, 81, 421-432	5.3	27
32	Top-down estimate of surface flux in the Los Angeles Basin using a mesoscale inverse modeling technique: assessing anthropogenic emissions of CO, NO_x and CO₂ and their impacts. *Atmospheric Chemistry and Physics*, **2013**, 13, 3661-3677	6.8	119
31	Trends in ozone, its precursors, and related secondary oxidation products in Los Angeles, California: A synthesis of measurements from 1960 to 2010. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 5893-5911	4.4	94
30	Impact of Southern California anthropogenic emissions on ozone pollution in the mountain states: Model analysis and observational evidence from space. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 12,784-12,803	4.4	17

29	Air quality implications of the Deepwater Horizon oil spill. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 20280-5	11.5	59
28	Mass spectral analysis of organic aerosol formed downwind of the Deepwater Horizon oil spill: field studies and laboratory confirmations. *Environmental Science & Technology*, **2012**, 46, 8025-34	10.3	38
27	Airborne and ground-based observations of a weekend effect in ozone, precursors, and oxidation products in the California South Coast Air Basin. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		84
26	Observations of ozone transport from the free troposphere to the Los Angeles basin. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		33
25	Transport of Asian ozone pollution into surface air over the western United States in spring. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		196
24	Evolution of aerosol properties impacting visibility and direct climate forcing in an ammonia-rich urban environment. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		43
23	Ozone and alkyl nitrate formation from the Deepwater Horizon oil spill atmospheric emissions. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		13
22	Airborne observations of methane emissions from rice cultivation in the Sacramento Valley of California. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		48
21	Transport pathways and signatures of mixing in the extratropical tropopause region derived from Lagrangian model simulations. *Journal of Geophysical Research*, **2011**, 116,		47
20	Atmospheric emissions from the Deepwater Horizon spill constrain air-water partitioning, hydrocarbon fate, and leak rate. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	91
19	Measurement of western U.S. baseline ozone from the surface to the tropopause and assessment of downwind impact regions. *Journal of Geophysical Research*, **2011**, 116,		63
18	Organic aerosol formation downwind from the Deepwater Horizon oil spill. *Science*, **2011**, 331, 1295-9	33.3	138
17	The glyoxal budget and its contribution to organic aerosol for Los Angeles, California, during CalNex 2010. *Journal of Geophysical Research*, **2011**, 116,		89
16	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
15	City lights and urban air. *Nature Geoscience*, **2011**, 4, 730-731	18.3	24
14	Diode laser-based cavity ring-down instrument for NO₃, N₂O₅, NO, NO₂ and O₃ from aircraft. *Atmospheric Measurement Techniques*, **2011**, 4, 1227-1240	4	98
13	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
12	Evaluation of ultraviolet light-emitting diodes for detection of atmospheric NO2 by photolysis - chemiluminescence. *Journal of Atmospheric Chemistry*, **2010**, 65, 111-125	3.2	99

List of Publications

11	Electronic quenching of OH A2Σ+ radicals in collisions with molecular hydrogen. *Chemical Physics Letters*, **2006**, 421, 324-328	2.5	16
10	Infrared overtone spectroscopy and unimolecular decay dynamics of peroxynitrous acid. *Journal of Chemical Physics*, **2005**, 122, 094320	3.9	41
9	Fluorescence-dip infrared spectroscopy and predissociation dynamics of OH A 2Sigma+ (v = 4) radicals. *Journal of Chemical Physics*, **2005**, 122, 244313	3.9	13
8	Infrared action spectroscopy and time-resolved dynamics of the ODCO reactant complex. *Journal of Chemical Physics*, **2003**, 119, 118-130	3.9	13
7	Spectroscopic characterization of HOONO and its binding energy via infrared action spectroscopy. *Journal of Chemical Physics*, **2003**, 119, 9981-9984	3.9	31
6	ODN2: Infrared spectroscopy, potential anisotropy, and predissociation dynamics from infared-ultraviolet double resonance studies. *Journal of Chemical Physics*, **2002**, 116, 913-923	3.9	7
5	Infrared Action Spectroscopy and Inelastic Recoil Dynamics of the CH4DD Reactant Complex. *Journal of Physical Chemistry A*, **2002**, 106, 7722-7727	2.8	4
4	The CU Airborne Solar Occultation Flux Instrument: Performance Evaluation during BB-FLUX. *ACS Earth and Space Chemistry*,	3.2	3
3	Top-down estimate of surface flux in the Los Angeles Basin using a mesoscale inverse modeling technique: assessing anthropogenic emissions of CO, NO_x and CO₂ and their impacts		3
2	Formaldehyde production from isoprene oxidation across NO_{<i>x</i>} regimes		6
1	A large and ubiquitous source of atmospheric formic acid		3