

Ilana B Pollack

List of Publications by Citations

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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	Why do Models Overestimate Surface Ozone in the Southeastern United States?. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 13561-13577	6.8	239
99	Transport of Asian ozone pollution into surface air over the western United States in spring. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		196
98	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	6.8	188
97	A large and ubiquitous source of atmospheric formic acid. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 6283-6304	6.8	141
96	The Deep Convective Clouds and Chemistry (DC3) Field Campaign. <i>Bulletin of the American Meteorological Society</i> , 2015 , 96, 1281-1309	6.1	140
95	Organic aerosol formation downwind from the Deepwater Horizon oil spill. <i>Science</i> , 2011 , 331, 1295-9	33.3	138
94	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 CO ₂ and their impacts. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 3661-3677	6.8	119
93	Airborne measurements of western U.S. wildfire emissions: Comparison with prescribed burning and air quality implications. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 6108-6129	4.4	116
92	Evaluation of ultraviolet light-emitting diodes for detection of atmospheric NO ₂ by photolysis - chemiluminescence. <i>Journal of Atmospheric Chemistry</i> , 2010 , 65, 111-125	3.2	99
91	Diode laser-based cavity ring-down instrument for NO ₃ , N ₂ O ₅ , NO, NO ₂ and O ₃ from aircraft. <i>Atmospheric Measurement Techniques</i> , 2011 , 4, 1227-1240	4	98
90	Trends in ozone, its precursors, and related secondary oxidation products in Los Angeles, California: A synthesis of measurements from 1960 to 2010. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 5893-5911	4.4	94
89	Atmospheric emissions from the Deepwater Horizon spill constrain air-water partitioning, hydrocarbon fate, and leak rate. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	91
88	The glyoxal budget and its contribution to organic aerosol for Los Angeles, California, during CalNex 2010. <i>Journal of Geophysical Research</i> , 2011 , 116,		89
87	Formaldehyde production from isoprene oxidation across NO regimes. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 2597-2610	6.8	88
86	Airborne and ground-based observations of a weekend effect in ozone, precursors, and oxidation products in the California South Coast Air Basin. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		84
85	Airborne measurements of organosulfates over the continental U.S. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 2990-3005	4.4	77
84	Agricultural fires in the southeastern U.S. during SEAC4RS: Emissions of trace gases and particles and evolution of ozone, reactive nitrogen, and organic aerosol. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 7383-7414	4.4	71

83	Upper tropospheric ozone production from lightning NO _x -impacted convection: Smoke ingestion case study from the DC3 campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 2505-2523	4.4	68
82	Source characterization of volatile organic compounds in the Colorado Northern Front Range Metropolitan Area during spring and summer 2015. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 3595-3613	4.4	64
81	An investigation of ammonia and inorganic particulate matter in California during the CalNex campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014 , 119, 1883-1902	4.4	63
80	Measurement of western U.S. baseline ozone from the surface to the tropopause and assessment of downwind impact regions. <i>Journal of Geophysical Research</i> , 2011 , 116,		63
79	Air quality implications of the Deepwater Horizon oil spill. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 20280-5	11.5	59
78	Analysis of long-term observations of NO _x and CO in megacities and application to constraining emissions inventories. <i>Geophysical Research Letters</i> , 2016 , 43, 9920-9930	4.9	55
77	Instrumentation and Measurement Strategy for the NOAA SENEX Aircraft Campaign as Part of the Southeast Atmosphere Study 2013. <i>Atmospheric Measurement Techniques</i> , 2016 , 9, 3063-3093	4	50
76	Thunderstorms enhance tropospheric ozone by wrapping and shedding stratospheric air. <i>Geophysical Research Letters</i> , 2014 , 41, 7785-7790	4.9	49
75	Airborne observations of methane emissions from rice cultivation in the Sacramento Valley of California. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		48
74	Transport pathways and signatures of mixing in the extratropical tropopause region derived from Lagrangian model simulations. <i>Journal of Geophysical Research</i> , 2011 , 116,		47
73	Promoting professional identity, motivation, and persistence: Benefits of an informal mentoring program for female undergraduate students. <i>PLoS ONE</i> , 2017 , 12, e0187531	3.7	44
72	Evolution of aerosol properties impacting visibility and direct climate forcing in an ammonia-rich urban environment. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		43
71	Modeling the weekly cycle of NO _x and CO emissions and their impacts on O ₃ in the Los Angeles-South Coast Air Basin during the CalNex 2010 field campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 1340-1360	4.4	43
70	Anthropogenic enhancements to production of highly oxygenated molecules from autoxidation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 6641-6646	11.5	42
69	Reassessing the ratio of glyoxal to formaldehyde as an indicator of hydrocarbon precursor speciation. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 7571-7583	6.8	42
68	Infrared overtone spectroscopy and unimolecular decay dynamics of peroxyxynitrous acid. <i>Journal of Chemical Physics</i> , 2005 , 122, 094320	3.9	41
67	Transition from high- to low-NO _x control of night-time oxidation in the southeastern US. <i>Nature Geoscience</i> , 2017 , 10, 490-495	18.3	39
66	Enhanced formation of isoprene-derived organic aerosol in sulfur-rich power plant plumes during Southeast Nexus. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 11,137-11,153	4.4	38

65	Quantifying sources and sinks of reactive gases in the lower atmosphere using airborne flux observations. <i>Geophysical Research Letters</i> , 2015 , 42, 8231-8240	4.9	38
64	Mass spectral analysis of organic aerosol formed downwind of the Deepwater Horizon oil spill: field studies and laboratory confirmations. <i>Environmental Science & Technology</i> , 2012 , 46, 8025-34	10.3	38
63	Observational constraints on glyoxal production from isoprene oxidation and its contribution to organic aerosol over the Southeast United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 9849-9861	4.4	38
62	Nighttime Chemical Transformation in Biomass Burning Plumes: A Box Model Analysis Initialized with Aircraft Observations. <i>Environmental Science & Technology</i> , 2019 , 53, 2529-2538	10.3	37
61	Modeling Ozone in the Eastern U.S. using a Fuel-Based Mobile Source Emissions Inventory. <i>Environmental Science & Technology</i> , 2018 , 52, 7360-7370	10.3	37
60	Lightning NO _x Emissions: Reconciling Measured and Modeled Estimates With Updated NO _x Chemistry. <i>Geophysical Research Letters</i> , 2017 , 44, 9479-9488	4.9	36
59	HONO emission and production determined from airborne measurements over the Southeast U.S.. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 9237-9250	4.4	34
58	Observations of ozone transport from the free troposphere to the Los Angeles basin. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		33
57	Changes in ozone and precursors during two aged wildfire smoke events in the Colorado Front Range in summer 2015. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 10691-10707	6.8	32
56	Spectroscopic characterization of HOONO and its binding energy via infrared action spectroscopy. <i>Journal of Chemical Physics</i> , 2003 , 119, 9981-9984	3.9	31
55	Secondary organic aerosol (SOA) yields from NO ₃ radical + isoprene based on nighttime aircraft power plant plume transects. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 11663-11682	6.8	30
54	Impact of evolving isoprene mechanisms on simulated formaldehyde: An inter-comparison supported by in situ observations from SENEX. <i>Atmospheric Environment</i> , 2017 , 164, 325-336	5.3	28
53	WRF-Chem simulation of NO _x and O ₃ in the L.A. basin during CalNex-2010. <i>Atmospheric Environment</i> , 2013 , 81, 421-432	5.3	27
52	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	26
51	Evaluating N ₂ O ₅ heterogeneous hydrolysis parameterizations for CalNex 2010. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 5051-5070	4.4	26
50	Decadal changes in summertime reactive oxidized nitrogen and surface ozone over the Southeast United States. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 2341-2361	6.8	24
49	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	4.4	24
48	Observed NO/NO ₂ Ratios in the Upper Troposphere Imply Errors in NO-NO ₂ -O ₃ Cycling Kinetics or an Unaccounted NO _x Reservoir. <i>Geophysical Research Letters</i> , 2018 , 45, 4466-4474	4.9	24

47	City lights and urban air. <i>Nature Geoscience</i> , 2011 , 4, 730-731	18.3	24
46	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. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 7430-7460	4.4	23
45	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	4.4	20
44	Injection of lightning-produced NO _x , water vapor, wildfire emissions, and stratospheric air to the UT/LS as observed from DC3 measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 6638-6668	4.4	20
43	Observational Constraints on the Oxidation of NO _x in the Upper Troposphere. <i>Journal of Physical Chemistry A</i> , 2016 , 120, 1468-78	2.8	20
42	Daytime Oxidized Reactive Nitrogen Partitioning in Western U.S. Wildfire Smoke Plumes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021 , 126, e2020JD033484	4.4	18
41	Impact of Southern California anthropogenic emissions on ozone pollution in the mountain states: Model analysis and observational evidence from space. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 12,784-12,803	4.4	17
40	A complete dynamical ozone budget measured in the tropical marine boundary layer during PASE. <i>Journal of Atmospheric Chemistry</i> , 2011 , 68, 55-70	3.2	17
39	Electronic quenching of OH A ₂ radicals in collisions with molecular hydrogen. <i>Chemical Physics Letters</i> , 2006 , 421, 324-328	2.5	16
38	Airborne measurements of the atmospheric emissions from a fuel ethanol refinery. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 4385-4397	4.4	14
37	Changes in nitrogen oxides emissions in California during 2005-2010 indicated from top-down and bottom-up emission estimates. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014 , 119, 12,928-12,952	4.4	14
36	Emissions of Reactive Nitrogen From Western U.S. Wildfires During Summer 2018. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021 , 126, e2020JD032657	4.4	14
35	Ozone and alkyl nitrate formation from the Deepwater Horizon oil spill atmospheric emissions. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		13
34	Infrared action spectroscopy and time-resolved dynamics of the OD ₂ O reactant complex. <i>Journal of Chemical Physics</i> , 2003 , 119, 118-130	3.9	13
33	Fluorescence-dip infrared spectroscopy and predissociation dynamics of OH A 2Sigma ⁺ (v = 4) radicals. <i>Journal of Chemical Physics</i> , 2005 , 122, 2443-13	3.9	13
32	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. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 1293-1311	4.4	12
31	Evaluation of ambient ammonia measurements from a research aircraft using a closed-path QC-TILDAS operated with active continuous passivation. <i>Atmospheric Measurement Techniques</i> , 2019 , 12, 3717-3742	4	12
30	Secondary organic aerosols from anthropogenic volatile organic compounds contribute substantially to air pollution mortality. <i>Atmospheric Chemistry and Physics</i> , 2021 , 21, 11201-11224	6.8	12

29	Seasonal Flux Measurements over a Colorado Pine Forest Demonstrate a Persistent Source of Organic Acids. <i>ACS Earth and Space Chemistry</i> , 2019 , 3, 2017-2032	3.2	11
28	Development of a Fuel-Based Oil and Gas Inventory of Nitrogen Oxides Emissions. <i>Environmental Science & Technology</i> , 2018 , 52, 10175-10185	10.3	9
27	Role of Criegee Intermediates in Secondary Sulfate Aerosol Formation in Nocturnal Power Plant Plumes in the Southeast US. <i>ACS Earth and Space Chemistry</i> , 2019 , 3, 748-759	3.2	8
26	Atmospheric oxidation in the presence of clouds during the Deep Convective Clouds and Chemistry (DC3) study. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 14493-14510	6.8	8
25	Acyl Peroxy Nitrates Link Oil and Natural Gas Emissions to High Ozone Abundances in the Colorado Front Range During Summer 2015. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019 , 124, 2336-2350	4.4	7
24	OD ₂ : Infrared spectroscopy, potential anisotropy, and predissociation dynamics from infrared-ultraviolet double resonance studies. <i>Journal of Chemical Physics</i> , 2002 , 116, 913-923	3.9	7
23	Role modeling is a viable retention strategy for undergraduate women in the geosciences 2018 ,		7
22	Formaldehyde production from isoprene oxidation across NO _x regimes		6
21	Inspiration, inoculation, and introductions are all critical to successful mentorship for undergraduate women pursuing geoscience careers. <i>Communications Earth & Environment</i> , 2020 , 1,	6.1	6
20	Hydrocarbon Removal in Power Plant Plumes Shows Nitrogen Oxide Dependence of Hydroxyl Radicals. <i>Geophysical Research Letters</i> , 2019 , 46, 7752-7760	4.9	5
19	Infrared Action Spectroscopy and Inelastic Recoil Dynamics of the CH ₄ OD Reactant Complex. <i>Journal of Physical Chemistry A</i> , 2002 , 106, 7722-7727	2.8	4
18	Empirical Insights Into the Fate of Ammonia in Western U.S. Wildfire Smoke Plumes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021 , 126, e2020JD033730	4.4	4
17	The CU Airborne Solar Occultation Flux Instrument: Performance Evaluation during BB-FLUX. <i>ACS Earth and Space Chemistry</i> ,	3.2	3
16	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 CO ₂ and their impacts		3
15	A large and ubiquitous source of atmospheric formic acid		3
14	Quantifying Methane and Ozone Precursor Emissions from Oil and Gas Production Regions across the Contiguous US. <i>Environmental Science & Technology</i> , 2021 , 55, 9129-9139	10.3	3
13	The impact of aged wildfire smoke on atmospheric composition and ozone in the Colorado Front Range in summer 2015 2017 ,		2
12	Welcoming Women into the Geosciences. <i>Eos</i> , 2018 , 99,	1.5	2

11	Seasonality and Source Apportionment of Nonmethane Volatile Organic Compounds at Boulder Reservoir, Colorado, Between 2017 and 2019. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021 , 126, e2020JD034234	4.4	2
10	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	6.8	2
9	Vertical Transport, Entrainment, and Scavenging Processes Affecting Trace Gases in a Modeled and Observed SEAC4RS Case Study. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020 , 125, e2019JD031457	4.4	1
8	Machine Learning Uncovers Aerosol Size Information From Chemistry and Meteorology to Quantify Potential Cloud-Forming Particles. <i>Geophysical Research Letters</i> , 2021 , 48,	4.9	1
7	Errors in top-down estimates of emissions using a known source. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 11855-11868	6.8	1
6	Limited impact of sulfate-driven chemistry on black carbon aerosol aging in power plant plumes. <i>AIMS Environmental Science</i> , 2018 , 5, 195-215	1.9	1
5	Leveraging Field-Campaign Networks to Identify Sexual Harassment in Atmospheric Science and Pilot Promising Interventions. <i>Bulletin of the American Meteorological Society</i> , 2021 , 1-32	6.1	1
4	Simulating the Weekly Cycle of NO _x -VOC-HO _x -O ₃ Photochemical System in the South Coast of California During CalNex-2010 Campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019 , 124, 3532-3555	4.4	1
3	Weekend-Weekday Implications and the Impact of Wildfire Smoke on Ozone and Its Precursors at Boulder Reservoir, Colorado Between 2017 and 2019. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021 , 126, e2021JD035221	4.4	1
2	Wildfire-driven changes in the abundance of gas-phase pollutants in the city of Boise, ID during summer 2018. <i>Atmospheric Pollution Research</i> , 2022 , 13, 101269	4.5	0
1	Cows as canaries: The effects of ambient air pollution exposure on milk production and somatic cell count in dairy cows. <i>Environmental Research</i> , 2021 , 112197	7.9	0