Ilana B Pollack

List of Publications by Year
in descending order

100	5,268	66336	98792
papers	citations	42 h-index	67 g-index

120	120	120	5236
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Why do models overestimate surface ozone in the Southeast United States?. Atmospheric Chemistry and Physics, 2016, 16, 13561-13577.	4.9	320
2	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.	4.9	234
3	Transport of Asian ozone pollution into surface air over the western United States in spring. Journal of Geophysical Research, 2012, 117, .	3.3	218
4	A large and ubiquitous source of atmospheric formic acid. Atmospheric Chemistry and Physics, 2015, 15, 6283-6304.	4.9	197
5	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.	3.3	184
6	The Deep Convective Clouds and Chemistry (DC3) Field Campaign. Bulletin of the American Meteorological Society, 2015, 96, 1281-1309.	3.3	165
7	Organic Aerosol Formation Downwind from the Deepwater Horizon Oil Spill. Science, 2011, 331, 1295-1299.	12.6	162
8	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.	4.9	142
9	Formaldehyde production from isoprene oxidation acrossÂNO_{<i>x</i>}Âregimes. Atmospheric Chemistry and Physics, 2016, 16, 2597-2610.	4.9	124
10	Evaluation of ultraviolet light-emitting diodes for detection of atmospheric NO2 by photolysis - chemiluminescence. Journal of Atmospheric Chemistry, 2010, 65, 111-125.	3.2	121
11	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.	3.3	115
12	Diode laser-based cavity ring-down instrument for NO₃, N₂O₅, NO, NO₂ and O₃ from aircraft. Atmospheric Measurement Techniques, 2011, 4, 1227-1240.	3.1	113
13	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.	4.0	107
14	The glyoxal budget and its contribution to organic aerosol for Los Angeles, California, during CalNex 2010. Journal of Geophysical Research, 2011, 116, .	3.3	99
15	Airborne and groundâ€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, .	3.3	97
16	Airborne measurements of organosulfates over the continental U.S.. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2990-3005.	3.3	96
17	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.	3.3	93
18	Upper tropospheric ozone production from lightning NO_xâ€impacted convection: Smoke ingestion case study from the DC3 campaign. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2505-2523.	3.3	88

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19	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.	3.3	81
20	Air quality implications of theDeepwater Horizonoil spill. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20280-20285.	7.1	79
21	Promoting professional identity, motivation, and persistence: Benefits of an informal mentoring program for female undergraduate students. PLoS ONE, 2017, 12, e0187531.	2.5	79
22	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.	7.1	78
23	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, .	3.3	71
24	An investigation of ammonia and inorganic particulate matter in California during the CalNex campaign. Journal of Geophysical Research D: Atmospheres, 2014, 119, 1883-1902.	3.3	69
25	Analysis of longâ€term observations of NO_x and CO in megacities and application to constraining emissions inventories. Geophysical Research Letters, 2016, 43, 9920-9930.	4.0	69
26	Nighttime Chemical Transformation in Biomass Burning Plumes: A Box Model Analysis Initialized with Aircraft Observations. Environmental Science & Technology, 2019, 53, 2529-2538.	10.0	68
27	Modeling Ozone in the Eastern U.S. using a Fuel-Based Mobile Source Emissions Inventory. Environmental Science & Technology, 2018, 52, 7360-7370.	10.0	64
28	Thunderstorms enhance tropospheric ozone by wrapping and shedding stratospheric air. Geophysical Research Letters, 2014, 41, 7785-7790.	4.0	62
29	Secondary organic aerosols from anthropogenic volatile organic compounds contribute substantially to air pollution mortality. Atmospheric Chemistry and Physics, 2021, 21, 11201-11224.	4.9	60
30	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.	3.1	58
31	Lightning NO_x Emissions: Reconciling Measured and Modeled Estimates With Updated NO_x Chemistry. Geophysical Research Letters, 2017, 44, 9479-9488.	4.0	56
32	Transition from high- to low-NOx control of night-time oxidation in the southeastern US. Nature Geoscience, 2017, 10, 490-495.	12.9	56
33	Reassessing the ratio of glyoxal to formaldehyde as an indicator of hydrocarbon precursor speciation. Atmospheric Chemistry and Physics, 2015, 15, 7571-7583.	4.9	55
34	Evolution of aerosol properties impacting visibility and direct climate forcing in an ammoniaâ€rich urban environment. Journal of Geophysical Research, 2012, 117, .	3.3	54
35	Quantifying sources and sinks of reactive gases in the lower atmosphere using airborne flux observations. Geophysical Research Letters, 2015, 42, 8231-8240.	4.0	53
36	Transport pathways and signatures of mixing in the extratropical tropopause region derived from Lagrangian model simulations. Journal of Geophysical Research, 2011, 116, .	3.3	52

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37	Modeling the weekly cycle of NO_x and CO emissions and their impacts on O₃ in the Los Angelesâ€South Coast Air Basin during the CalNex 2010 field campaign. Journal of Geophysical Research D: Atmospheres, 2016, 121, 1340-1360.	3.3	51
38	HONO Emissions from Western U.S. Wildfires Provide Dominant Radical Source in Fresh Wildfire Smoke. Environmental Science & Technology, 2020, 54, 5954-5963.	10.0	51
39	Airborne observations of methane emissions from rice cultivation in the Sacramento Valley of California. Journal of Geophysical Research, 2012, 117, .	3.3	50
40	Enhanced formation of isopreneâ€derived organic aerosol in sulfurâ€rich power plant plumes during Southeast Nexus. Journal of Geophysical Research D: Atmospheres, 2016, 121, 11,137.	3.3	50
41	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.	4.9	49
42	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.	3.3	48
43	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.	4.9	47
44	Infrared overtone spectroscopy and unimolecular decay dynamics of peroxynitrous acid. Journal of Chemical Physics, 2005, 122, 094320.	3.0	46
45	HONO emission and production determined from airborne measurements over the Southeast U.S.. Journal of Geophysical Research D: Atmospheres, 2016, 121, 9237-9250.	3.3	46
46	Mass Spectral Analysis of Organic Aerosol Formed Downwind of the Deepwater Horizon Oil Spill: Field Studies and Laboratory Confirmations. Environmental Science & Technology, 2012, 46, 8025-8034.	10.0	45
47	Emissions of Reactive Nitrogen From Western U.S. Wildfires During Summer 2018. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD032657.	3.3	41
48	Observations of ozone transport from the free troposphere to the Los Angeles basin. Journal of Geophysical Research, 2012, 117, .	3.3	38
49	Daytime Oxidized Reactive Nitrogen Partitioning in Western U.S. Wildfire Smoke Plumes. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033484.	3.3	36
50	WRF-Chem simulation of NOx and O3 in the L.A. basin during CalNex-2010. Atmospheric Environment, 2013, 81, 421-432.	4.1	34
51	Observed NO/NO₂ Ratios in the Upper Troposphere Imply Errors in NOâ€NO₂â€O₃ Cycling Kinetics or an Unaccounted NO_x Reservoir. Geophysical Research Letters, 2018, 45, 4466-4474.	4.0	34
52	Evaluating N₂O₅ heterogeneous hydrolysis parameterizations for CalNex 2010. Journal of Geophysical Research D: Atmospheres, 2016, 121, 5051-5070.	3.3	33
53	Impact of evolving isoprene mechanisms on simulated formaldehyde: An inter-comparison supported by in situ observations from SENEX. Atmospheric Environment, 2017, 164, 325-336.	4.1	33
54	Spectroscopic characterization of HOONO and its binding energy via infrared action spectroscopy. Journal of Chemical Physics, 2003, 119, 9981-9984.	3.0	32

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55	Decadal changes in summertime reactive oxidized nitrogen and surface ozone over the Southeast United States. Atmospheric Chemistry and Physics, 2018, 18, 2341-2361.	4.9	30
56	City lights and urban air. Nature Geoscience, 2011, 4, 730-731.	12.9	29
57	Convective transport of formaldehyde to the upper troposphere and lower stratosphere and associated scavenging in thunderstorms over the central United States during the 2012â€‰DC3 study. Journal of Geophysical Research D: Atmospheres, 2016, 121, 7430-7460.	3.3	28
58	Injection of lightningâ€produced NO_x, 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.	3.3	28
59	Airborne quantification of upper tropospheric NO_x production from lightning in deep convective storms over the United States Great Plains. Journal of Geophysical Research D: Atmospheres, 2016, 121, 2002-2028.	3.3	25
60	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.	3.3	24
61	Observational Constraints on the Oxidation of NOx in the Upper Troposphere. Journal of Physical Chemistry A, 2016, 120, 1468-1478.	2.5	23
62	Quantifying Methane and Ozone Precursor Emissions from Oil and Gas Production Regions across the Contiguous US. Environmental Science & Technology, 2021, 55, 9129-9139.	10.0	23
63	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.	3.1	22
64	A complete dynamical ozone budget measured in the tropical marine boundary layer during PASE. Journal of Atmospheric Chemistry, 2011, 68, 55-70.	3.2	21
65	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.	3.3	21
66	Evaluating the Impact of Chemical Complexity and Horizontal Resolution on Tropospheric Ozone Over the Conterminous US With a Global Variable Resolution Chemistry Model. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	20
67	Development of a Fuel-Based Oil and Gas Inventory of Nitrogen Oxides Emissions. Environmental Science & Technology, 2018, 52, 10175-10185.	10.0	19
68	Seasonal Flux Measurements over a Colorado Pine Forest Demonstrate a Persistent Source of Organic Acids. ACS Earth and Space Chemistry, 2019, 3, 2017-2032.	2.7	19
69	Electronic quenching of OH A2Î£+ radicals in collisions with molecular hydrogen. Chemical Physics Letters, 2006, 421, 324-328.	2.6	18
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.	4.9	18
71	Summertime tropospheric ozone enhancement associated with a cold front passage due to stratosphereâ€toâ€troposphere transport and biomass burning: Simultaneous groundâ€based lidar and airborne measurements. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1293-1311.	3.3	17
72	Inspiration, inoculation, and introductions are all critical to successful mentorship for undergraduate women pursuing geoscience careers. Communications Earth & Environment, 2020, 1, .	6.8	17

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73	Fluorescence-dip infrared spectroscopy and predissociation dynamics of OH AÎ£+2 (v=4) radicals. Journal of Chemical Physics, 2005, 122, 244313.	3.0	16
74	Ozone and alkyl nitrate formation from the Deepwater Horizon oil spill atmospheric emissions. Journal of Geophysical Research, 2012, 117, .	3.3	16
75	Changes in nitrogen oxides emissions in California during 2005â€“2010 indicated from topâ€down and bottomâ€up emission estimates. Journal of Geophysical Research D: Atmospheres, 2014, 119, 12,928.	3.3	16
76	Airborne measurements of the atmospheric emissions from a fuel ethanol refinery. Journal of Geophysical Research D: Atmospheres, 2015, 120, 4385-4397.	3.3	16
77	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.	2.7	16
78	Infrared action spectroscopy and time-resolved dynamics of the ODâ€“CO reactant complex. Journal of Chemical Physics, 2003, 119, 118-130.	3.0	13
79	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.	3.3	13
80	Role modeling is a viable retention strategy for undergraduate women in the geosciences. , 0, , .		12
81	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	12
82	Errors in top-down estimates of emissions using a known source. Atmospheric Chemistry and Physics, 2020, 20, 11855-11868.	4.9	11
83	Hydrocarbon Removal in Power Plant Plumes Shows Nitrogen Oxide Dependence of Hydroxyl Radicals. Geophysical Research Letters, 2019, 46, 7752-7760.	4.0	9
84	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.	3.3	9
85	Photochemical evolution of the 2013 California Rim Fire: synergistic impacts of reactive hydrocarbons and enhanced oxidants. Atmospheric Chemistry and Physics, 2022, 22, 4253-4275.	4.9	9
86	Simulating the Weekly Cycle of NO x â€VOCâ€HO x â€O 3 Photochemical System in the South Coast of California During CalNexâ€2010 Campaign. Journal of Geophysical Research D: Atmospheres, 2019, 124, 3532-3555.	3.3	8
87	ODâ€“N2: Infrared spectroscopy, potential anisotropy, and predissociation dynamics from infared-ultraviolet double resonance studies. Journal of Chemical Physics, 2002, 116, 913-923.	3.0	7
88	Weekendâ€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.	3.3	7
89	Cows as canaries: The effects of ambient air pollution exposure on milk production and somatic cell count in dairy cows. Environmental Research, 2021, , 112197.	7.5	7
90	Machine Learning Uncovers Aerosol Size Information From Chemistry and Meteorology to Quantify Potential Cloudâ€Forming Particles. Geophysical Research Letters, 2021, 48, .	4.0	7

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91	The CU Airborne Solar Occultation Flux Instrument: Performance Evaluation during BB-FLUX. ACS Earth and Space Chemistry, 2022, 6, 582-596.	2.7	7
92	Enhancements in Ammonia and Methane from Agricultural Sources in the Northeastern Colorado Front Range Using Observations from a Small Research Aircraft. Environmental Science & Technology, 2022, 56, 2236-2247.	10.0	7
93	Infrared Action Spectroscopy and Inelastic Recoil Dynamics of the CH4â^'OD Reactant Complex. Journal of Physical Chemistry A, 2002, 106, 7722-7727.	2.5	5
94	Vertical Transport, Entrainment, and Scavenging Processes Affecting Trace Gases in a Modeled and Observed SEAC 4 RS Case Study. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031957.	3.3	5
95	Welcoming Women into the Geosciences. Eos, 2018, 99, .	0.1	5
96	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.	3.8	5
97	Seeking congruity for communal and agentic goals: a longitudinal examination of U.S. college womenâ€™s persistence in STEM. Social Psychology of Education, 2022, 25, 649-674.	2.5	4
98	PM_{2.5} in Carlsbad Caverns National Park: Composition, sources, and visibility impacts. Journal of the Air and Waste Management Association, 2022, 72, 1201-1218.	1.9	3
99	Leveraging Field-Campaign Networks to Identify Sexual Harassment in Atmospheric Science and Pilot Promising Interventions. Bulletin of the American Meteorological Society, 2021, , 1-32.	3.3	1
100	Limited impact of sulfate-driven chemistry on black carbon aerosol aging in power plant plumes. AIMS Environmental Science, 2018, 5, 195-215.	1.4	1