Rebecca S Hornbrook

List of Publications by Year
in descending order

112	3,950	106120	150159
papers	citations	35 h-index	56 g-index

184	184	184	5810
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Measurements and Modeling of the Interhemispheric Differences of Atmospheric Chlorinated Very Shortâ€Lived Substances. Journal of Geophysical Research D: Atmospheres, 2024, 129, .	3.3	0
2	Parameterizations of US wildfire and prescribed fire emission ratios and emission factors based on FIREX-AQ aircraft measurements. Atmospheric Chemistry and Physics, 2024, 24, 929-956.	5.0	3
3	Identifying and correcting interferences to PTR-ToF-MS measurements of isoprene and other urban volatile organic compounds. Atmospheric Measurement Techniques, 2024, 17, 801-825.	3.1	10
4	Observationally constrained analysis of sulfur cycle in the marine atmosphere with NASA ATom measurements and AeroCom model simulations. Atmospheric Chemistry and Physics, 2024, 24, 1717-1741.	5.0	0
5	East Asian summer monsoon delivers large abundances of very short-lived organic chlorine substances to the lower stratosphere. Proceedings of the National Academy of Sciences of the United States of America, 2024, 121, .	7.6	1
6	Air Quality Monitoring and the Safety of Farmworkers in Wildfire Mandatory Evacuation Zones. GeoHealth, 2024, 8, .	4.1	0
7	Chloromethanes in the North American Troposphere and Lower Stratosphere Over the Past Two Decades. Geophysical Research Letters, 2024, 51, .	4.0	0
8	Atmospheric OH reactivity in the western United States determined from comprehensive gas-phase measurements during WE-CAN. Environmental Science Atmospheres, 2023, 3, 97-114.	2.1	7
9	Heterogeneity and chemical reactivity of the remote troposphere defined by aircraft measurements â€“ corrected. Atmospheric Chemistry and Physics, 2023, 23, 99-117.	5.0	3
10	Pyrocumulonimbus affect average stratospheric aerosol composition. Science, 2023, 379, 815-820.	20.9	10
11	Constraining emissions of volatile organic compounds from western US wildfires with WE-CAN and FIREX-AQ airborne observations. Atmospheric Chemistry and Physics, 2023, 23, 5969-5991.	5.0	7
12	Emission Factors for Crop Residue and Prescribed Fires in the Eastern US During FIREXâ€AQ. Journal of Geophysical Research D: Atmospheres, 2023, 128, .	3.3	2
13	Synthesizing evidence for the external cycling of NOx in high- to low-NOx atmospheres. Nature Communications, 2023, 14, .	13.2	4
14	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
15	The CU Airborne Solar Occultation Flux Instrument: Performance Evaluation during BB-FLUX. ACS Earth and Space Chemistry, 2022, 6, 582-596.	2.8	9
16	The Role of Snow in Controlling Halogen Chemistry and Boundary Layer Oxidation During Arctic Spring: A 1D Modeling Case Study. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	6
17	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, .	3.7	29
18	Source and variability of formaldehyde (HCHO) at northern high latitudes: an integrated satellite, aircraft, and model study. Atmospheric Chemistry and Physics, 2022, 22, 7163-7178.	5.0	11

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19	Effects of Fire Diurnal Variation and Plume Rise on U.S. Air Quality During FIREXâ€AQ and WEâ€CAN Based on the Multiâ€Scale Infrastructure for Chemistry and Aerosols (MUSICAv0). Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	19
20	An improved representation of fire non-methane organic gases (NMOGs) in models: emissions to reactivity. Atmospheric Chemistry and Physics, 2022, 22, 12093-12111.	5.0	5
21	Composition and reactivity of volatile organic compounds in the South Coast Air Basin and San Joaquin Valley of California. Atmospheric Chemistry and Physics, 2022, 22, 10937-10954.	5.0	6
22	Global seasonal distribution of CH₂Br₂ and CHBr₃ in the upper troposphere and lower stratosphere. Atmospheric Chemistry and Physics, 2022, 22, 15049-15070.	5.0	3
23	Daytime Oxidized Reactive Nitrogen Partitioning in Western U.S. Wildfire Smoke Plumes. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033484.	3.3	44
24	The Global Budget of Atmospheric Methanol: New Constraints on Secondary, Oceanic, and Terrestrial Sources. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033439.	3.3	43
25	Unpiloted Aircraft System Instrument for the Rapid Collection of Whole Air Samples and Measurements for Environmental Monitoring and Air Quality Studies. Environmental Science & Technology, 2021, 55, 5657-5667.	10.5	7
26	HCOOH in the Remote Atmosphere: Constraints from Atmospheric Tomography (ATom) Airborne Observations. ACS Earth and Space Chemistry, 2021, 5, 1436-1454.	2.8	15
27	Emissions of Trace Organic Gases From Western U.S. Wildfires Based on WEâ€CAN Aircraft Measurements. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033838.	3.3	64
28	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
29	Impact of stratospheric air and surface emissions on tropospheric nitrous oxide during ATom. Atmospheric Chemistry and Physics, 2021, 21, 11113-11132.	5.0	6
30	Exposure to Particulate Matter and Estimation of Volatile Organic Compounds across Wildland Firefighter Job Tasks. Environmental Science & Technology, 2021, 55, 11795-11804.	10.5	17
31	Chemical Tomography in a Fresh Wildland Fire Plume: A Large Eddy Simulation (LES) Study. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035203.	3.3	17
32	Heterogeneity and chemical reactivity of the remote troposphere defined by aircraft measurements. Atmospheric Chemistry and Physics, 2021, 21, 13729-13746.	5.0	4
33	Deriving Tropospheric Transit Time Distributions Using Airborne Trace Gas Measurements: Uncertainty and Information Content. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034358.	3.3	3
34	Severe COVID-19 in patients with hematological cancers presenting with viremia. Annals of Oncology, 2021, 32, 1297-1300.	1.3	14
35	Large contribution of biomass burning emissions to ozone throughout the global remote troposphere. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.6	58
36	Formaldehyde evolution in US wildfire plumes during the Fire Influence on Regional to Global Environments and Air Quality experiment (FIREX-AQ). Atmospheric Chemistry and Physics, 2021, 21, 18319-18331.	5.0	29

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37	Ozone depletion due to dust release of iodine in the free troposphere. Science Advances, 2021, 7, eabj6544.	10.9	11
38	Exploring Oxidation in the Remote Free Troposphere: Insights From Atmospheric Tomography (ATom). Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031685.	3.3	25
39	Diverging trends in incidence of HIV versus other sexually transmitted infections in HIV-negative MSM in Amsterdam. Aids, 2020, 34, 301-309.	2.2	36
40	Global Atmospheric Budget of Acetone: Airâ€Sea Exchange and the Contribution to Hydroxyl Radicals. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032553.	3.3	20
41	Urban Snowpack ClNO2 Production and Fate: A One-Dimensional Modeling Study. ACS Earth and Space Chemistry, 2020, 4, 1140-1148.	2.8	8
42	Hazardous Air Pollutants in Fresh and Aged Western US Wildfire Smoke and Implications for Long-Term Exposure. Environmental Science & Technology, 2020, 54, 11838-11847.	10.5	81
43	Geometric unification of Higgs bundle vacua. Physical Review D, 2020, 102, .	4.8	5
44	Widespread biomass burning smoke throughout the remote troposphere. Nature Geoscience, 2020, 13, 422-427.	11.9	76
45	Missing OH reactivity in the global marine boundary layer. Atmospheric Chemistry and Physics, 2020, 20, 4013-4029.	5.0	28
46	Evidence of Nighttime Production of Organic Nitrates During SEAC⁴RS, FRAPPÃ‰, and KORUSâ€AQ. Geophysical Research Letters, 2020, 47, e2020GL087860.	4.0	9
47	Observation of Road Salt Aerosol Driving Inland Wintertime Atmospheric Chlorine Chemistry. ACS Central Science, 2020, 6, 684-694.	12.3	48
48	Evidence for an Oceanic Source of Methyl Ethyl Ketone to the Atmosphere. Geophysical Research Letters, 2020, 47, e2019GL086045.	4.0	8
49	HONO Emissions from Western U.S. Wildfires Provide Dominant Radical Source in Fresh Wildfire Smoke. Environmental Science & Technology, 2020, 54, 5954-5963.	10.5	62
50	Global airborne sampling reveals a previously unobserved dimethyl sulfide oxidation mechanism in the marine atmosphere. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4505-4510.	7.6	136
51	Validation of satellite formaldehyde (HCHO) retrievals using observations from 12 aircraft campaigns. Atmospheric Chemistry and Physics, 2020, 20, 12329-12345.	5.0	23
52	Constraining remote oxidation capacity with ATom observations. Atmospheric Chemistry and Physics, 2020, 20, 7753-7781.	5.0	39
53	Ocean Biogeochemistry Control on the Marine Emissions of Brominated Very Shortâ€Lived Ozoneâ€Depleting Substances: A Machineâ€Learning Approach. Journal of Geophysical Research D: Atmospheres, 2019, 124, 12319-12339.	3.3	19
54	On the sources and sinks of atmospheric VOCs: an integrated analysis of recent aircraft campaigns over North America. Atmospheric Chemistry and Physics, 2019, 19, 9097-9123.	5.0	33

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55	The PNPLA3 rs738409 C>G variant interacts with changes in body weight over time to aggravate liver steatosis, but reduces the risk of incident type 2 diabetes. Diabetologia, 2019, 62, 644-654.	6.5	24
56	Importance of reactive halogens in the tropical marine atmosphere: aÂregional modelling study using WRF-Chem. Atmospheric Chemistry and Physics, 2019, 19, 3161-3189.	5.0	38
57	Atmospheric Acetaldehyde: Importance of Airâ€Sea Exchange and a Missing Source in the Remote Troposphere. Geophysical Research Letters, 2019, 46, 5601-5613.	4.0	42
58	International haemovigilance: what have we learned and what do we need to do next?. Transfusion Medicine, 2019, 29, 221-230.	1.1	43
59	Novel approaches to improve estimates of short-lived halocarbon emissions during summer from the Southern Ocean using airborne observations. Atmospheric Chemistry and Physics, 2019, 19, 14071-14090.	5.0	5
60	Heterogeneous N₂O₅ Uptake During Winter: Aircraft Measurements During the 2015 WINTER Campaign and Critical Evaluation of Current Parameterizations. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4345-4372.	3.3	111
61	An aerosol particle containing enriched uranium encountered in the remote upper troposphere. Journal of Environmental Radioactivity, 2018, 184-185, 95-100.	1.8	6
62	Wintertime Overnight NO_x Removal in a Southeastern United States Coalâ€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
63	The O2/N2 Ratio and CO2 Airborne Southern Ocean Study. Bulletin of the American Meteorological Society, 2018, 99, 381-402.	5.5	32
64	Wintertime Transport of Reactive Trace Gases From East Asia Into the Deep Tropics. Journal of Geophysical Research D: Atmospheres, 2018, 123, 12,877.	3.3	6
65	Use of Airborne In Situ VOC Measurements to Estimate Transit Time Spectrum: An Observationâ€Based Diagnostic of Convective Transport. Geophysical Research Letters, 2018, 45, 13,150.	4.0	8
66	Sources and characteristics of summertime organic aerosol in the Colorado Front Range: perspective from measurements and WRF-Chem modeling. Atmospheric Chemistry and Physics, 2018, 18, 8293-8312.	5.0	13
67	Tropospheric HONO distribution and chemistry in the southeastern US. Atmospheric Chemistry and Physics, 2018, 18, 9107-9120.	5.0	24
68	Sources and Secondary Production of Organic Aerosols in the Northeastern United States during WINTER. Journal of Geophysical Research D: Atmospheres, 2018, 123, 7771-7796.	3.3	75
69	The Convective Transport of Active Species in the Tropics (CONTRAST) Experiment. Bulletin of the American Meteorological Society, 2017, 98, 106-128.	5.5	52
70	Formaldehyde in the Tropical Western Pacific: Chemical Sources and Sinks, Convective Transport, and Representation in CAMâ€Chem and the CCMI Models. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11201-11226.	3.3	36
71	BrO and inferred Br_{<i>y</i>} profiles over the western Pacific: relevance of inorganic bromine sources and a Br_{<i>y</i>} minimum in the aged tropical tropopause layer. Atmospheric Chemistry and Physics, 2017, 17, 15245-15270.	5.0	36
72	A comparative study of the optimal control design using evolutionary algorithms: Application on a close-loop system. , 2017, , .		1

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73	A comparison of very short lived halocarbon (VSLS) and DMS aircraft measurements in the tropical west Pacific from CAST, ATTREX and CONTRAST. Atmospheric Measurement Techniques, 2016, 9, 5213-5225.	3.1	27
74	An observationally constrained evaluation of the oxidative capacity in the tropical western Pacific troposphere. Journal of Geophysical Research D: Atmospheres, 2016, 121, 7461-7488.	3.3	20
75	Rapid cycling of reactive nitrogen in the marine boundary layer. Nature, 2016, 532, 489-491.	36.2	177
76	Arctic springtime observations of volatile organic compounds during the OASISâ€2009 campaign. Journal of Geophysical Research D: Atmospheres, 2016, 121, 9789-9813.	3.3	20
77	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	28
78	Atmospheric benzene observations from oil and gas production in the Denverâ€Julesburg Basin in July and August 2014. Journal of Geophysical Research D: Atmospheres, 2016, 121, 11,055.	3.3	72
79	Airborne measurements of BrO and the sum of HOBr and Br₂ over the Tropical West Pacific from 1 to 15â€‰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
80	Origin of oxidized mercury in the summertime free troposphere over the southeastern US. Atmospheric Chemistry and Physics, 2016, 16, 1511-1530.	5.0	70
81	Aerosol optical extinction during the Front Range Air Pollution and Photochemistry Ã‰xperiment (FRAPPÃ‰) 2014 summertime field campaign, Colorado, USA. Atmospheric Chemistry and Physics, 2016, 16, 11207-11217.	5.0	13
82	Impacts of the Denver Cyclone on regional air quality and aerosol formation in the Colorado Front Range during FRAPPÃ‰Â2014. Atmospheric Chemistry and Physics, 2016, 16, 12039-12058.	5.0	24
83	Wet scavenging of soluble gases in DC3 deep convective storms using WRFâ€Chem simulations and aircraft observations. Journal of Geophysical Research D: Atmospheres, 2016, 121, 4233-4257.	3.3	31
84	A pervasive role for biomass burning in tropical high ozone/low water structures. Nature Communications, 2016, 7, 10267.	13.2	37
85	Constraints from observations and modeling on atmosphereâ€“surface exchange of mercury in eastern North America. Elementa, 2016, 4, .	3.3	4
86	Zinc Transporter SLC39A7/ZIP7 Promotes Intestinal Epithelial Self-Renewal by Resolving ER Stress. PLoS Genetics, 2016, 12, e1006349.	3.4	83
87	Airborne flux measurements of methane and volatile organic compounds over the Haynesville and Marcellus shale gas production regions. Journal of Geophysical Research D: Atmospheres, 2015, 120, 6271-6289.	3.3	63
88	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	92
89	Interactions of bromine, chlorine, and iodine photochemistry during ozone depletions in Barrow, Alaska. Atmospheric Chemistry and Physics, 2015, 15, 9651-9679.	5.0	32
90	The NO_{<i>x</i>} dependence of bromine chemistry in the Arctic atmospheric boundary layer. Atmospheric Chemistry and Physics, 2015, 15, 10799-10809.	5.0	23

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91	The Deep Convective Clouds and Chemistry (DC3) Field Campaign. Bulletin of the American Meteorological Society, 2015, 96, 1281-1309.	5.5	166
92	Active and widespread halogen chemistry in the tropical and subtropical free troposphere. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9281-9286.	7.6	92
93	Strong averaging principle for slow-fast SPDEs with Poisson random measures. Discrete and Continuous Dynamical Systems - Series B, 2015, 20, 2233-2256.	0.9	15
94	High levels of molecular chlorine in the Arctic atmosphere. Nature Geoscience, 2014, 7, 91-94.	11.9	107
95	Inspiring senior nurses to lead the delivery of compassionate care. Nursing Older People, 2014, 26, 26-30.	0.2	12
96	Missing peroxy radical sources within a summertime ponderosa pine forest. Atmospheric Chemistry and Physics, 2014, 14, 4715-4732.	5.0	58
97	Overview of the Manitou Experimental Forest Observatory: site description and selected science results from 2008 to 2013. Atmospheric Chemistry and Physics, 2014, 14, 6345-6367.	5.0	64
98	A continuous-time differential single-bit quantizer for IR-UWB receivers. , 2013, , .		0
99	Comparison of different real time VOC measurement techniques in a ponderosa pine forest. Atmospheric Chemistry and Physics, 2013, 13, 2893-2906.	5.0	83
100	Airborne intercomparison of HO_x measurements using laser-induced fluorescence and chemical ionization mass spectrometry during ARCTAS. Atmospheric Measurement Techniques, 2012, 5, 2025-2037.	3.1	28
101	Garcinol Regulates EMT and Wnt Signaling PathwaysIn VitroandIn Vivo, Leading to Anticancer Activity against Breast Cancer Cells. Molecular Cancer Therapeutics, 2012, 11, 2193-2201.	3.7	146
102	Observations of glyoxal and formaldehyde as metrics for the anthropogenic impact on rural photochemistry. Atmospheric Chemistry and Physics, 2012, 12, 9529-9543.	5.0	73
103	Impact of the deep convection of isoprene and other reactive trace species on radicals and ozone in the upper troposphere. Atmospheric Chemistry and Physics, 2012, 12, 1135-1150.	5.0	34
104	The relative importance of chlorine and bromine radicals in the oxidation of atmospheric mercury at Barrow, Alaska. Journal of Geophysical Research, 2012, 117, .	3.3	61
105	Nitrous acid (HONO) during polar spring in Barrow, Alaska: A net source of OH radicals?. Journal of Geophysical Research, 2011, 116, .	3.3	71
106	Observations of nonmethane organic compounds during ARCTAS â˜' Part 1: Biomass burning emissions and plume enhancements. Atmospheric Chemistry and Physics, 2011, 11, 11103-11130.	5.0	83
107	A complete dynamical ozone budget measured in the tropical marine boundary layer during PASE. Journal of Atmospheric Chemistry, 2011, 68, 55-70.	3.2	22
108	Measurements of tropospheric HO₂ and RO₂ by oxygen dilution modulation and chemical ionization mass spectrometry. Atmospheric Measurement Techniques, 2011, 4, 735-756.	3.1	55

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109	Inferring ozone production in an urban atmosphere using measurements of peroxynitric acid. Atmospheric Chemistry and Physics, 2009, 9, 3697-3707.	5.0	18
110	Teeth, jaws and muscles in mammalian mastication.. , 2006, , 61-83.		24
111	Saamische Literatur. , 2006, , 447-462.		1
112	Human ARF protein interacts with Topoisomerase I and stimulates its activity. Oncogene, 2001, 20, 836-848.	5.9	84