# 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 | Rapid cycling of reactive nitrogen in the marine boundary layer. Nature, 2016, 532, 489-491. | 36.2 | 177 |
| 2 | The Deep Convective Clouds and Chemistry (DC3) Field Campaign. Bulletin of the American Meteorological Society, 2015, 96, 1281-1309. | 5.5 | 166 |
| 3 | 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 |
| 4 | 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 |
| 5 | Heterogeneous N<sub>2</sub>O<sub>5</sub> 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 |
| 6 | High levels of molecular chlorine in the Arctic atmosphere. Nature Geoscience, 2014, 7, 91-94. | 11.9 | 107 |
| 7 | Upper tropospheric ozone production from lightning NO<sub>x</sub>â€impacted convection: Smoke ingestion case study from the DC3 campaign. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2505-2523. | 3.3 | 92 |
| 8 | 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 |
| 9 | Human ARF protein interacts with Topoisomerase I and stimulates its activity. Oncogene, 2001, 20, 836-848. | 5.9 | 84 |
| 10 | 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 |
| 11 | Comparison of different real time VOC measurement techniques in a ponderosa pine forest. Atmospheric Chemistry and Physics, 2013, 13, 2893-2906. | 5.0 | 83 |
| 12 | Zinc Transporter SLC39A7/ZIP7 Promotes Intestinal Epithelial Self-Renewal by Resolving ER Stress. PLoS Genetics, 2016, 12, e1006349. | 3.4 | 83 |
| 13 | 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 |
| 14 | Widespread biomass burning smoke throughout the remote troposphere. Nature Geoscience, 2020, 13, 422-427. | 11.9 | 76 |
| 15 | 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 |
| 16 | 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 |
| 17 | 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 |
| 18 | Nitrous acid (HONO) during polar spring in Barrow, Alaska: A net source of OH radicals?. Journal of Geophysical Research, 2011, 116, . | 3.3 | 71 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Origin of oxidized mercury in the summertime free troposphere over the southeastern US. Atmospheric Chemistry and Physics, 2016, 16, 1511-1530. | 5.0 | 70 |
| 20 | 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 |
| 21 | 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 |
| 22 | 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 |
| 23 | 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 |
| 24 | 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 |
| 25 | Missing peroxy radical sources within a summertime ponderosa pine forest. Atmospheric Chemistry and Physics, 2014, 14, 4715-4732. | 5.0 | 58 |
| 26 | 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 |
| 27 | Measurements of tropospheric HO<sub>2</sub> and RO<sub>2</sub> by oxygen dilution modulation and chemical ionization mass spectrometry. Atmospheric Measurement Techniques, 2011, 4, 735-756. | 3.1 | 55 |
| 28 | The Convective Transport of Active Species in the Tropics (CONTRAST) Experiment. Bulletin of the American Meteorological Society, 2017, 98, 106-128. | 5.5 | 52 |
| 29 | Observation of Road Salt Aerosol Driving Inland Wintertime Atmospheric Chlorine Chemistry. ACS Central Science, 2020, 6, 684-694. | 12.3 | 48 |
| 30 | Daytime Oxidized Reactive Nitrogen Partitioning in Western U.S. Wildfire Smoke Plumes. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033484. | 3.3 | 44 |
| 31 | International haemovigilance: what have we learned and what do we need to do next?. Transfusion Medicine, 2019, 29, 221-230. | 1.1 | 43 |
| 32 | 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 |
| 33 | 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 |
| 34 | Constraining remote oxidation capacity with ATom observations. Atmospheric Chemistry and Physics, 2020, 20, 7753-7781. | 5.0 | 39 |
| 35 | 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 |
| 36 | A pervasive role for biomass burning in tropical high ozone/low water structures. Nature Communications, 2016, 7, 10267. | 13.2 | 37 |

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| 37 | 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 |
| 38 | BrO and inferred Br<sub><i>y</i></sub> profiles over the western Pacific: relevance of inorganic bromine sources and a Br<sub><i>y</i></sub> minimum in the aged tropical tropopause layer. Atmospheric Chemistry and Physics, 2017, 17, 15245-15270. | 5.0 | 36 |
| 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 | 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 |
| 41 | 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 |
| 42 | Interactions of bromine, chlorine, and iodine photochemistry during ozone depletions in Barrow, Alaska. Atmospheric Chemistry and Physics, 2015, 15, 9651-9679. | 5.0 | 32 |
| 43 | The O2/N2 Ratio and CO2 Airborne Southern Ocean Study. Bulletin of the American Meteorological Society, 2018, 99, 381-402. | 5.5 | 32 |
| 44 | 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 |
| 45 | 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 |
| 46 | 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 |
| 47 | Airborne intercomparison of HO<sub>x</sub> measurements using laser-induced fluorescence and chemical ionization mass spectrometry during ARCTAS. Atmospheric Measurement Techniques, 2012, 5, 2025-2037. | 3.1 | 28 |
| 48 | Airborne quantification of upper tropospheric NO‹i›‹sub›x‹/sub›‹/i› 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 |
| 49 | Missing OH reactivity in the global marine boundary layer. Atmospheric Chemistry and Physics, 2020, 20, 4013-4029. | 5.0 | 28 |
| 50 | 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 |
| 51 | Exploring Oxidation in the Remote Free Troposphere: Insights From Atmospheric Tomography (ATom). Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031685. | 3.3 | 25 |
| 52 | Impacts of the Denver Cyclone on regional air quality and aerosol formation in the Colorado Front Range during FRAPPÃ‰2014. Atmospheric Chemistry and Physics, 2016, 16, 12039-12058. | 5.0 | 24 |
| 53 | Tropospheric HONO distribution and chemistry in the southeastern US. Atmospheric Chemistry and Physics, 2018, 18, 9107-9120. | 5.0 | 24 |
| 54 | 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 |

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| 55 | Teeth, jaws and muscles in mammalian mastication.. , 2006, , 61-83. | | 24 |
| 56 | The NO<sub><i>x</i></sub> dependence of bromine chemistry in the Arctic atmospheric boundary layer. Atmospheric Chemistry and Physics, 2015, 15, 10799-10809. | 5.0 | 23 |
| 57 | Validation of satellite formaldehyde (HCHO) retrievals using observations from 12 aircraft campaigns. Atmospheric Chemistry and Physics, 2020, 20, 12329-12345. | 5.0 | 23 |
| 58 | 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 |
| 59 | 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 |
| 60 | 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 |
| 61 | 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 |
| 62 | 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 |
| 63 | 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 |
| 64 | Inferring ozone production in an urban atmosphere using measurements of peroxynitric acid. Atmospheric Chemistry and Physics, 2009, 9, 3697-3707. | 5.0 | 18 |
| 65 | 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 |
| 66 | 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 |
| 67 | Airborne measurements of BrO and the sum of HOBr and Br<sub>2</sub> 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 |
| 68 | Wintertime Overnight NO<sub>x</sub> Removal in a Southeastern United States Coalâ€fired Power Plant Plume: A Model for Understanding Winter NO<sub>x</sub> Processing and its Implications. Journal of Geophysical Research D: Atmospheres, 2018, 123, 1412-1425. | 3.3 | 15 |
| 69 | HCOOH in the Remote Atmosphere: Constraints from Atmospheric Tomography (ATom) Airborne Observations. ACS Earth and Space Chemistry, 2021, 5, 1436-1454. | 2.8 | 15 |
| 70 | 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 |
| 71 | Severe COVID-19 in patients with hematological cancers presenting with viremia. Annals of Oncology, 2021, 32, 1297-1300. | 1.3 | 14 |
| 72 | 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 |

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| 73 | 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 |
| 74 | 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 |
| 75 | Inspiring senior nurses to lead the delivery of compassionate care. Nursing Older People, 2014, 26, 26-30. | 0.2 | 12 |
| 76 | Ozone depletion due to dust release of iodine in the free troposphere. Science Advances, 2021, 7, eabj6544. | 10.9 | 11 |
| 77 | 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 |
| 78 | Pyrocumulonimbus affect average stratospheric aerosol composition. Science, 2023, 379, 815-820. | 20.9 | 10 |
| 79 | 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 |
| 80 | Evidence of Nighttime Production of Organic Nitrates During SEAC<sup>4</sup>RS, FRAPPÃ‰, and KORUSâ€AQ. Geophysical Research Letters, 2020, 47, e2020GL087860. | 4.0 | 9 |
| 81 | The CU Airborne Solar Occultation Flux Instrument: Performance Evaluation during BB-FLUX. ACS Earth and Space Chemistry, 2022, 6, 582-596. | 2.8 | 9 |
| 82 | 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 |
| 83 | Urban Snowpack ClNO2 Production and Fate: A One-Dimensional Modeling Study. ACS Earth and Space Chemistry, 2020, 4, 1140-1148. | 2.8 | 8 |
| 84 | Evidence for an Oceanic Source of Methyl Ethyl Ketone to the Atmosphere. Geophysical Research Letters, 2020, 47, e2019GL086045. | 4.0 | 8 |
| 85 | 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 |
| 86 | 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 |
| 87 | 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 |
| 88 | An aerosol particle containing enriched uranium encountered in the remote upper troposphere. Journal of Environmental Radioactivity, 2018, 184-185, 95-100. | 1.8 | 6 |
| 89 | 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 |
| 90 | Impact of stratospheric air and surface emissions on tropospheric nitrous oxide during ATom. Atmospheric Chemistry and Physics, 2021, 21, 11113-11132. | 5.0 | 6 |

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| 91 | 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 |
| 92 | 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 |
| 93 | 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 |
| 94 | Geometric unification of Higgs bundle vacua. Physical Review D, 2020, 102, . | 4.8 | 5 |
| 95 | 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 |
| 96 | 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 |
| 97 | Heterogeneity and chemical reactivity of the remote troposphere defined by aircraft measurements. Atmospheric Chemistry and Physics, 2021, 21, 13729-13746. | 5.0 | 4 |
| 98 | Constraints from observations and modeling on atmosphereâ€“surface exchange of mercury in eastern North America. Elementa, 2016, 4, . | 3.3 | 4 |
| 99 | Synthesizing evidence for the external cycling of NOx in high- to low-NOx atmospheres. Nature Communications, 2023, 14, . | 13.2 | 4 |
| 100 | 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 |
| 101 | Global seasonal distribution of CH<sub>2</sub>Br<sub>2</sub> and CHBr<sub>3</sub> in the upper troposphere and lower stratosphere. Atmospheric Chemistry and Physics, 2022, 22, 15049-15070. | 5.0 | 3 |
| 102 | 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 |
| 103 | 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 |
| 104 | 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 |
| 105 | A comparative study of the optimal control design using evolutionary algorithms: Application on a close-loop system. , 2017, , . | | 1 |
| 106 | Saamische Literatur. , 2006, , 447-462. | | 1 |
| 107 | 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 |
| 108 | A continuous-time differential single-bit quantizer for IR-UWB receivers. , 2013, , . | | 0 |

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|---|---|---|---|
| 109 | 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 |
| 110 | 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 |
| 111 | Air Quality Monitoring and the Safety of Farmworkers in Wildfire Mandatory Evacuation Zones. GeoHealth, 2024, 8, . | 4.1 | 0 |
| 112 | Chloromethanes in the North American Troposphere and Lower Stratosphere Over the Past Two Decades. Geophysical Research Letters, 2024, 51, . | 4.0 | 0 |