# Lyatt Jaegle

## List of Publications by Citations



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|---|---|---|---|
| 102 papers | 6,080 citations | 43 h-index | 77 g-index |
| 107 ext. papers | 6,800 ext. citations | 6.1 avg, IF | 5.3 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 102 | Global distribution of sea salt aerosols: new constraints from in situ and remote sensing observations. *Atmospheric Chemistry and Physics*, **2011**, 11, 3137-3157 | 6.8 | 393 |
| 101 | Global partitioning of NOx sources using satellite observations: relative roles of fossil fuel combustion, biomass burning and soil emissions. *Faraday Discussions*, **2005**, 130, 407-23; discussion 491-517, 519-24 | 3.6 | 337 |
| 100 | Hydrogen radicals, nitrogen radicals, and the production of O3 in the upper troposphere. *Science*, **1998**, 279, 49-53 | 33.3 | 300 |
| 99 | Chemical cycling and deposition of atmospheric mercury: Global constraints from observations. *Journal of Geophysical Research*, **2007**, 112, | | 294 |
| 98 | Long-range transport of Asian pollution to the northeast Pacific: Seasonal variations and transport pathways of carbon monoxide. *Journal of Geophysical Research*, **2004**, 109, | | 222 |
| 97 | Long-range transport of Siberian biomass burning emissions and impact on surface ozone in western North America. *Geophysical Research Letters*, **2004**, 31, | 4.9 | 205 |
| 96 | Chemistry of HOx radicals in the upper troposphere. *Atmospheric Environment*, **2001**, 35, 469-489 | 5.3 | 195 |
| 95 | Chemistry of hydrogen oxide radicals (HO<sub>x</sub>) in the Arctic troposphere in spring. *Atmospheric Chemistry and Physics*, **2010**, 10, 5823-5838 | 6.8 | 184 |
| 94 | Air-sea exchange in the global mercury cycle. *Global Biogeochemical Cycles*, **2007**, 21, | 5.9 | 160 |
| 93 | Photochemistry of HO x in the upper troposphere at northern midlatitudes. *Journal of Geophysical Research*, **2000**, 105, 3877-3892 | | 145 |
| 92 | Observed OH and HO2 in the upper troposphere suggest a major source from convective injection of peroxides. *Geophysical Research Letters*, **1997**, 24, 3181-3184 | 4.9 | 143 |
| 91 | Remote sensed and in situ constraints on processes affecting tropical tropospheric ozone. *Atmospheric Chemistry and Physics*, **2007**, 7, 815-838 | 6.8 | 141 |
| 90 | Observations of reactive gaseous mercury in the free troposphere at the Mount Bachelor Observatory. *Journal of Geophysical Research*, **2006**, 111, | | 137 |
| 89 | Global 3-D land-ocean-atmosphere model for mercury: Present-day versus preindustrial cycles and anthropogenic enrichment factors for deposition. *Global Biogeochemical Cycles*, **2008**, 22, n/a-n/a | 5.9 | 130 |
| 88 | Satellite mapping of rain-induced nitric oxide emissions from soils. *Journal of Geophysical Research*, **2004**, 109, n/a-n/a | | 116 |
| 87 | Sources and chemistry of NOx in the upper troposphere over the United States. *Geophysical Research Letters*, **1998**, 25, 1705-1708 | 4.9 | 109 |
| 86 | Sources of HOx and production of ozone in the upper troposphere over the United States. *Geophysical Research Letters*, **1998**, 25, 1709-1712 | 4.9 | 88 |

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| 85 | Airborne in-situ OH and HO2 observations in the cloud-free troposphere and lower stratosphere during SUCCESS. *Geophysical Research Letters*, **1998**, 25, 1701-1704 | 4.9 | 88 |
| 84 | Chemical feedbacks weaken the wintertime response of particulate sulfate and nitrate to emissions reductions over the eastern United States. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 8110-8115 | 11.5 | 86 |
| 83 | Nested-grid simulation of mercury over North America. *Atmospheric Chemistry and Physics*, **2012**, 12, 6095-6111 | 6.8 | 83 |
| 82 | PHOBEA/ITCT 2002 airborne observations of transpacific transport of ozone, CO, volatile organic compounds, and aerosols to the northeast Pacific: Impacts of Asian anthropogenic and Siberian boreal fire emissions. *Journal of Geophysical Research*, **2004**, 109, | | 83 |
| 81 | Formaldehyde (HCHO) As a Hazardous Air Pollutant: Mapping Surface Air Concentrations from Satellite and Inferring Cancer Risks in the United States. *Environmental Science & Technology*, **2017**, 51, 5650-5657 | 10.3 | 80 |
| 80 | Progress on understanding atmospheric mercury hampered by uncertain measurements. *Environmental Science & Technology*, **2014**, 48, 7204-6 | 10.3 | 78 |
| 79 | Sources and budgets for CO and O3 in the northeastern Pacific during the spring of 2001: Results from the PHOBEA-II Experiment. *Journal of Geophysical Research*, **2003**, 108, | | 78 |
| 78 | Assessing known pathways for HO2 loss in aqueous atmospheric aerosols: Regional and global impacts on tropospheric oxidants. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a | | 76 |
| 77 | Trans-Pacific transport of mercury. *Journal of Geophysical Research*, **2008**, 113, | | 73 |
| 76 | Impact of Asian emissions on observations at Trinidad Head, California, during ITCT 2K2. *Journal of Geophysical Research*, **2004**, 109, | | 73 |
| 75 | Summertime influence of Asian pollution in the free troposphere over North America. *Journal of Geophysical Research*, **2007**, 112, | | 72 |
| 74 | 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 | 4.4 | 69 |
| 73 | Trans-Pacific transport of Saharan dust to western North America: A case study. *Journal of Geophysical Research*, **2007**, 112, | | 69 |
| 72 | Global budget of molecular hydrogen and its deuterium content: Constraints from ground station, cruise, and aircraft observations. *Journal of Geophysical Research*, **2007**, 112, | | 68 |
| 71 | Observations of HO x and its relationship with NO x in the upper troposphere during SONEX. *Journal of Geophysical Research*, **2000**, 105, 3771-3783 | | 63 |
| 70 | OH and HO2 chemistry in the North Atlantic free troposphere. *Geophysical Research Letters*, **1999**, 26, 3077-3080 | 4.9 | 63 |
| 69 | Ozone photochemistry and the role of peroxyacetyl nitrate in the springtime northeastern Pacific troposphere: Results from the Photochemical Ozone Budget of the Eastern North Pacific Atmosphere (PHOBEA) campaign. *Journal of Geophysical Research*, **2001**, 106, 28731-28742 | | 59 |
| 68 | Wintertime enhancements of sea salt aerosol in polar regions consistent with a sea ice source from blowing snow. *Atmospheric Chemistry and Physics*, **2017**, 17, 3699-3712 | 6.8 | 58 |

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| 67 | Sources and Secondary Production of Organic Aerosols in the Northeastern United States during WINTER. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 7771-7796 | 4.4 | 57 |
| 66 | Origin of oxidized mercury in the summertime free troposphere over the southeastern US. *Atmospheric Chemistry and Physics*, **2016**, 16, 1511-1530 | 6.8 | 56 |
| 65 | Meteorological indices for Asian outflow and transpacific transport on daily to interannual timescales. *Journal of Geophysical Research*, **2005**, 110, | | 54 |
| 64 | Oxidation of mercury by bromine in the subtropical Pacific free troposphere. *Geophysical Research Letters*, **2015**, 42, 10,494 | 4.9 | 51 |
| 63 | Synthesis of the Southeast Atmosphere Studies: Investigating Fundamental Atmospheric Chemistry Questions. *Bulletin of the American Meteorological Society*, **2018**, 99, 547-567 | 6.1 | 50 |
| 62 | Six centuries of changing oceanic mercury. *Global Biogeochemical Cycles*, **2014**, 28, 1251-1261 | 5.9 | 50 |
| 61 | Reactive nitrogen budget during the NASA SONEX Mission. *Geophysical Research Letters*, **1999**, 26, 3057-3060 | 4.9 | 50 |
| 60 | Balloon observations of organic and inorganic chlorine in the stratosphere: the role of HClO4 production on sulfate aerosols. *Geophysical Research Letters*, **1996**, 23, 1749-52 | 4.9 | 48 |
| 59 | Sulfate production by reactive bromine: Implications for the global sulfur and reactive bromine budgets. *Geophysical Research Letters*, **2017**, 44, 7069-7078 | 4.9 | 43 |
| 58 | Vertical distribution of mercury, CO, ozone, and aerosol scattering coefficient in the Pacific Northwest during the spring 2006 INTEX-B campaign. *Journal of Geophysical Research*, **2008**, 113, | | 43 |
| 57 | Ozone production in the upper troposphere and the influence of aircraft during SONEX: approach of NOx-saturated conditions. *Geophysical Research Letters*, **1999**, 26, 3081-3084 | 4.9 | 42 |
| 56 | Natural biogeochemical cycle of mercury in a global three-dimensional ocean tracer model. *Global Biogeochemical Cycles*, **2014**, 28, 553-570 | 5.9 | 40 |
| 55 | Satellite observations of aerosol transport from East Asia to the Arctic: three case studies. *Atmospheric Chemistry and Physics*, **2011**, 11, 2225-2243 | 6.8 | 40 |
| 54 | Meteorological controls on observed peroxyacetyl nitrate at Mount Bachelor during the spring of 2008. *Journal of Geophysical Research*, **2010**, 115, | | 40 |
| 53 | Hydrochloric acid and the chlorine budget of the lower stratosphere. *Geophysical Research Letters*, **1994**, 21, 2575-2578 | 4.9 | 40 |
| 52 | Spatial and seasonal distribution of Arctic aerosols observed by the CALIOP satellite instrument (2006–2012). *Atmospheric Chemistry and Physics*, **2013**, 13, 7075-7095 | 6.8 | 39 |
| 51 | Transport of biomass burning emissions from southern Africa. *Journal of Geophysical Research*, **2004**, 109, | | 36 |
| 50 | NOx Lifetime and NOy Partitioning During WINTER. *Journal of Geophysical Research D: Atmospheres* , **2018**, 123, 9813-9827 | 4.4 | 32 |

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| 49 | Influence of long-range-transported pollution on the annual and diurnal cycles of carbon monoxide and ozone at Cheeka Peak Observatory. *Journal of Geophysical Research*, **2004**, 109, | | 32 |
| 48 | Nitrogen Oxides Emissions, Chemistry, Deposition, and Export Over the Northeast United States During the WINTER Aircraft Campaign. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 12,368 | 4.4 | 32 |
| 47 | Balloon profiles of stratospheric NO2 and HNO3 for testing the heterogeneous hydrolysis of N2O5 on sulfate aerosols. *Geophysical Research Letters*, **1994**, 21, 53-56 | 4.9 | 29 |
| 46 | Impact of mercury emissions from historic gold and silver mining: Global modeling. *Atmospheric Environment*, **2009**, 43, 2012-2017 | 5.3 | 28 |
| 45 | Flight Deployment of a High-Resolution Time-of-Flight Chemical Ionization Mass Spectrometer: Observations of Reactive Halogen and Nitrogen Oxide Species. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 7670 | 4.4 | 25 |
| 44 | Decreases in Mercury Wet Deposition over the United States during 2004–2010: Roles of Domestic and Global Background Emission Reductions. *Atmosphere*, **2013**, 4, 113-131 | 2.7 | 25 |
| 43 | ClNO2 Yields From Aircraft Measurements During the 2015 WINTER Campaign and Critical Evaluation of the Current Parameterization. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 12,994 | 4.4 | 24 |
| 42 | Multi-model study of mercury dispersion in the atmosphere: vertical and interhemispheric distribution of mercury species. *Atmospheric Chemistry and Physics*, **2017**, 17, 6925-6955 | 6.8 | 23 |
| 41 | Evolution of HCL concentrations in the lower stratosphere from 1991 to 1996 following the eruption of Mt. Pinatubo. *Geophysical Research Letters*, **1998**, 25, 995-998 | 4.9 | 23 |
| 40 | Biomass Burning Markers and Residential Burning in the WINTER Aircraft Campaign. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 1846-1861 | 4.4 | 22 |
| 39 | Meridional distribution of molecular hydrogen and its deuterium content in the atmosphere. *Journal of Geophysical Research*, **2010**, 115, | | 22 |
| 38 | Vertical transport of anthropogenic mercury in the ocean. *Global Biogeochemical Cycles*, **2010**, 24, n/a-n/a | 3.9 | 21 |
| 37 | Airborne Observations of Reactive Inorganic Chlorine and Bromine Species in the Exhaust of Coal-Fired Power Plants. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 11225-11237 | 4.4 | 21 |
| 36 | Evolution and stoichiometry of heterogeneous processing in the Antarctic stratosphere. *Journal of Geophysical Research*, **1997**, 102, 13235-13253 | | 20 |
| 35 | Anthropogenic control over wintertime oxidation of atmospheric pollutants. *Geophysical Research Letters*, **2019**, 46, 14826-14835 | 4.9 | 20 |
| 34 | In situ measurements of the NO2/NO ratio for testing atmospheric photochemical models. *Geophysical Research Letters*, **1994**, 21, 2555-2558 | 4.9 | 19 |
| 33 | Evaluation of CMAQ Coupled With a State-of-the-Art Mercury Chemical Mechanism (CMAQ-newHg-Br). *Journal of Advances in Modeling Earth Systems*, **2018**, 10, 668-690 | 7.1 | 18 |
| 32 | Composite study of aerosol export events from East Asia and North America. *Atmospheric Chemistry and Physics*, **2013**, 13, 1221-1242 | 6.8 | 18 |

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| 31 | Widespread Pollution From Secondary Sources of Organic Aerosols During Winter in the Northeastern United States. *Geophysical Research Letters*, **2019**, 46, 2974-2983 | 4.9 | 17 |
| 30 | Multi-year composite view of ozone enhancements and stratosphere-to-troposphere transport in dry intrusions of northern hemisphere extratropical cyclones. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 13436-13457 | 4.4 | 16 |
| 29 | Subtropical subsidence and surface deposition of oxidized mercury produced in the free troposphere. *Atmospheric Chemistry and Physics*, **2017**, 17, 8999-9017 | 6.8 | 16 |
| 28 | Using CALIOP to constrain blowing snow emissions of sea salt aerosols over Arctic and Antarctic sea ice. *Atmospheric Chemistry and Physics*, **2018**, 18, 16253-16269 | 6.8 | 16 |
| 27 | Wintertime Gas-Particle Partitioning and Speciation of Inorganic Chlorine in the Lower Troposphere Over the Northeast United States and Coastal Ocean. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 12,897 | 4.4 | 16 |
| 26 | Nitrogen oxides in the global upper troposphere: interpreting cloud-sliced NO<sub>2</sub> observations from the OMI satellite instrument. *Atmospheric Chemistry and Physics*, **2018**, 18, 17017-17027 | 6.8 | 15 |
| 25 | Global high-resolution emissions of soil NO, sea salt aerosols, and biogenic volatile organic compounds. *Scientific Data*, **2020**, 7, 148 | 8.2 | 13 |
| 24 | Correction to Global 3-D land-ocean-atmosphere model for mercury: Present-day versus preindustrial cycles and anthropogenic enrichment factors for deposition *Global Biogeochemical Cycles*, **2008**, 22, n/a-n/a | 5.9 | 13 |
| 23 | Atmospheric science. Pumping up surface air. *Science*, **2007**, 315, 772-3 | 33.3 | 11 |
| 22 | Observational Constraints on the Formation of Cl2 From the Reactive Uptake of ClNO2 on Aerosols in the Polluted Marine Boundary Layer. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 8851-8869 | 4.4 | 10 |
| 21 | Nested-grid simulation of mercury over North America | | 10 |
| 20 | Evaluating the impact of blowing-snow sea salt aerosol on springtime BrO and O<sub>3</sub> in the Arctic. *Atmospheric Chemistry and Physics*, **2020**, 20, 7335-7358 | 6.8 | 9 |
| 19 | The Geos-Chem model **2009**, 533-545 | | 9 |
| 18 | Rates of Wintertime Atmospheric SO2 Oxidation based on Aircraft Observations during Clear-Sky Conditions over the Eastern United States. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 6630-6649 | 4.4 | 8 |
| 17 | NOy partitioning from measurements of nitrogen and hydrogen radicals in the upper troposphere. *Geophysical Research Letters*, **1999**, 26, 51-54 | 4.9 | 8 |
| 16 | Reduced Arctic air pollution due to decreasing European and North American emissions. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 8692-8700 | 4.4 | 6 |
| 15 | Airborne observations of mercury emissions from the Chicago/Gary urban/industrial area during the 2013 NOMADSS campaign. *Atmospheric Environment*, **2016**, 145, 415-423 | 5.3 | 6 |
| 14 | Heterogeneous Nitrate Production Mechanisms in Intense Haze Events in the North China Plain. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2021JD034688 | 4.4 | 5 |

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| 13 | Constraints from observations and modeling on atmosphere–surface exchange of mercury in eastern North America. *Elementa*, **2016**, 4, | 3.6 | 4 |
| 12 | Effects of Sea Salt Aerosol Emissions for Marine Cloud Brightening on Atmospheric Chemistry: Implications for Radiative Forcing. *Geophysical Research Letters*, **2020**, 47, e2019GL085838 | 4.9 | 3 |
| 11 | Importance of a global scale approach to using regional models in the assessment of source-receptor relationships for mercury **2009**, 503-517 | | 3 |
| 10 | Regional Characteristics of Atmospheric Sulfate Formation in East Antarctica Imprinted on 17O-Excess Signature. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD033583 | 4.4 | 3 |
| 9 | Spatial and seasonal distribution of Arctic aerosols observed by CALIOP (2006–2012) | | 2 |
| 8 | Significant Decrease in Wet Deposition of Anthropogenic Chloride Across the Eastern United States, 1998–2018. *Geophysical Research Letters*, **2020**, 47, e2020GL090195 | 4.9 | 2 |
| 7 | Wintertime Formaldehyde: Airborne Observations and Source Apportionment Over the Eastern United States. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD033518 | 4.4 | 2 |
| 6 | Chapter 14 Chemistry of HOx radicals in the upper troposphere. *Developments in Environmental Science*, **2002**, 1, 393-433 | | 1 |
| 5 | Origin of oxidized mercury in the summertime free troposphere over the southeastern US | | 1 |
| 4 | Perspectives and Integration in SOLAS Science. *Springer Earth System Sciences*, **2014**, 247-306 | 0.3 | 1 |
| 3 | Chemistry of hydrogen oxide radicals (HO<sub>x</sub>) in the Arctic troposphere in spring | | 1 |
| 2 | Seasonally Resolved Holocene Sea Ice Variability Inferred From South Pole Ice Core Chemistry. *Geophysical Research Letters*, **2021**, 48, e2020GL091602 | 4.9 | 1 |
| 1 | Global simulations of monoterpene-derived peroxy radical fates and the distributions of highly oxygenated organic molecules (HOMs) and accretion products. *Atmospheric Chemistry and Physics*, **2022**, 22, 5477-5494 | 6.8 | 0 |