Kathy Law

List of Publications by Year
in descending order

120 papers	8,392 citations	57631 44 h-index	58464 82 g-index
158 all docs	158 docs citations	158 times ranked	7309 citing authors

#	Article	IF	Citations
1	Tropospheric ozone and its precursors from the urban to the global scale from air quality to short-lived climate forcer. Atmospheric Chemistry and Physics, 2015, 15, 8889-8973.	1.9	942
2	Measurement of ozone and water vapor by Airbus in-service aircraft: The MOZAIC airborne program, an overview. Journal of Geophysical Research, 1998, 103, 25631-25642.	3.3	468
3	Arctic Air Pollution: Origins and Impacts. Science, 2007, 315, 1537-1540.	6.0	440
4	Evaluating the climate and air quality impacts of short-lived pollutants. Atmospheric Chemistry and Physics, 2015, 15, 10529-10566.	1.9	365
5	Evaluation and intercomparison of global atmospheric transport models using222Rn and other short-lived tracers. Journal of Geophysical Research, 1997, 102, 5953-5970.	3.3	267
6	Long-term changes in lower tropospheric baseline ozone concentrations at northern mid-latitudes. Atmospheric Chemistry and Physics, 2012, 12, 11485-11504.	1.9	260
7	International Consortium for Atmospheric Research on Transport and Transformation (ICARTT): North America to Europe-Overview of the 2004 summer field study. Journal of Geophysical Research, 2006, 111, .	3.3	222
8	Fresh air in the 21st century?. Geophysical Research Letters, 2003, 30, .	1.5	192
9	Processes influencing ozone levels in Alaskan forest fire plumes during long-range transport over the North Atlantic. Journal of Geophysical Research, 2007, 112, .	3.3	182
10	Radiative forcing in the 21st century due to ozone changes in the troposphere and the lower stratosphere. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	153
11	Current model capabilities for simulating black carbon and sulfate concentrations in the Arctic atmosphere: a multi-model evaluation using a comprehensive measurement data set. Atmospheric Chemistry and Physics, 2015, 15, 9413-9433.	1.9	145
12	State of the Climate in 2013. Bulletin of the American Meteorological Society, 2014, 95, S1-S279.	1.7	138
13	Overview paper: New insights into aerosol and climate in the Arctic. Atmospheric Chemistry and Physics, 2019, 19, 2527-2560.	1.9	134
14	Effect of ozone depletion on atmospheric CH4 and CO concentrations. Nature, 1994, 371, 595-597.	13.7	131
15	Wildfire smoke in the Siberian Arctic in summer: source characterization and plume evolution from airborne measurements. Atmospheric Chemistry and Physics, 2009, 9, 9315-9327.	1.9	120
16	A comparison of scavenging and deposition processes in global models: results from the WCRP Cambridge Workshop of 1995. Tellus, Series B: Chemical and Physical Meteorology, 2000, 52, 1025-1056.	0.8	113
17	Modeling trace gas budgets in the troposphere: 1. Ozone and odd nitrogen. Journal of Geophysical Research, 1993, 98, 18377-18400.	3.3	108
18	Arctic Air Pollution: New Insights from POLARCAT-IPY. Bulletin of the American Meteorological Society, 2014, 95, 1873-1895.	1.7	107

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19	Local Arctic Air Pollution: A Neglected but Serious Problem. Earth's Future, 2018, 6, 1385-1412.	2.4	96
20	Lower tropospheric ozone at northern midlatitudes: Changing seasonal cycle. Geophysical Research Letters, 2013, 40, 1631-1636.	1.5	95
21	Gas-phase ultraviolet absorption cross-sections and atmospheric lifetimes of several C2î—¸C5 alkyl nitrates. Journal of Photochemistry and Photobiology A: Chemistry, 1997, 102, 117-126.	2.0	94
22	Chemical and aerosol characterisation of the troposphere over West Africa during the monsoon period as part of AMMA. Atmospheric Chemistry and Physics, 2010, 10, 7575-7601.	1.9	93
23	Evaluation of modeled O3using Measurement of Ozone by Airbus In-Service Aircraft (MOZAIC) data. Journal of Geophysical Research, 1998, 103, 25721-25737.	3.3	91
24	MERLIN: A French-German Space Lidar Mission Dedicated to Atmospheric Methane. Remote Sensing, 2017, 9, 1052.	1.8	88
25	Multi-model study of chemical and physical controls on transport of anthropogenic and biomass burning pollution to the Arctic. Atmospheric Chemistry and Physics, 2015, 15, 3575-3603.	1.9	83
26	Photochemical trajectory modeling studies of the North Atlantic region during August 1993. Journal of Geophysical Research, 1996, 101, 29269-29288.	3.3	75
27	Comparison between global chemistry transport model results and Measurement of Ozone and Water Vapor by Airbus In-Service Aircraft (MOZAIC) data. Journal of Geophysical Research, 2000, 105, 1503-1525.	3.3	73
28	Summertime tropospheric ozone assessment over the Mediterranean region using the thermal infrared IASI/MetOp sounder and the WRF-Chem model. Atmospheric Chemistry and Physics, 2014, 14, 10119-10131.	1.9	73
29	Modelling NOx from lightning and its impact on global chemical fields. Atmospheric Environment, 1999, 33, 4477-4493.	1.9	71
30	Results from the Intergovernmental Panel on Climatic Change Photochemical Model Intercomparison (PhotoComp). Journal of Geophysical Research, 1997, 102, 5979-5991.	3.3	68
31	Validation and intercomparison of wet and dry deposition schemes using210Pb in a global three-dimensional off-line chemical transport model. Journal of Geophysical Research, 1999, 104, 23761-23784.	3.3	67
32	In situ observations of new particle formation in the tropical upper troposphere: the role of clouds and the nucleation mechanism. Atmospheric Chemistry and Physics, 2011, 11, 9983-10010.	1.9	66
33	IASI carbon monoxide validation over the Arctic during POLARCAT spring and summer campaigns. Atmospheric Chemistry and Physics, 2010, 10, 10655-10678.	1.9	65
34	A comparison of large-scale atmospheric sulphate aerosol models (COSAM): overview and highlights. Tellus, Series B: Chemical and Physical Meteorology, 2001, 53, 615-645.	0.8	62
35	The POLARCAT Model Intercomparison Project (POLMIP): overview and evaluation with observations. Atmospheric Chemistry and Physics, 2015, 15, 6721-6744.	1.9	62
36	Summertime observations of elevated levels of ultrafine particles in the high Arctic marine boundary layer. Atmospheric Chemistry and Physics, 2017, 17, 5515-5535.	1.9	62

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37	Establishing Lagrangian connections between observations within air masses crossing the Atlantic during the International Consortium for Atmospheric Research on Transport and Transformation experiment. Journal of Geophysical Research, 2006, 111, .	3.3	60
38	Quantifying Emerging Local Anthropogenic Emissions in the Arctic Region: The ACCESS Aircraft Campaign Experiment. Bulletin of the American Meteorological Society, 2015, 96, 441-460.	1.7	60
39	Aerosols in the tropical and subtropical UT/LS: in-situ measurements of submicron particle abundance and volatility. Atmospheric Chemistry and Physics, 2010, 10, 5573-5592.	1.9	59
40	In situ measurements of tropical cloud properties in the West African Monsoon: upper tropospheric ice clouds, Mesoscale Convective System outflow, and subvisual cirrus. Atmospheric Chemistry and Physics, 2011, 11, 5569-5590.	1.9	59
41	CO emission and export from Asia: an analysis combining complementary satellite measurements (MOPITT, SCIAMACHY and ACE-FTS) with global modeling. Atmospheric Chemistry and Physics, 2008, 8, 5187-5204.	1.9	58
42	An introduction to the SCOUT-AMMA stratospheric aircraft, balloons and sondes campaign in West Africa, August 2006: rationale and roadmap. Atmospheric Chemistry and Physics, 2010, 10, 2237-2256.	1.9	58
43	Cross-hemispheric transport of central African biomass burning pollutants: implications for downwind ozone production. Atmospheric Chemistry and Physics, 2010, 10, 3027-3046.	1.9	58
44	Evaluation of a Lagrangian box model using field measurements from EASE (Eastern Atlantic Summer) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.9	57
45	Impact of West African Monsoon convective transport and lightning NO_x production upon the upper tropospheric composition: a multi-model study. Atmospheric Chemistry and Physics, 2010, 10, 5719-5738.	1.9	57
46	The West African climate system: a review of the AMMA model interâ€comparison initiatives. Atmospheric Science Letters, 2011, 12, 116-122.	0.8	57
47	Air quality and radiative impacts of Arctic shipping emissions in the summertime in northern Norway: from the local to the regional scale. Atmospheric Chemistry and Physics, 2016, 16, 2359-2379.	1.9	56
48	Modeling trace gas budgets in the troposphere: 2. CH₄ and CO. Journal of Geophysical Research, 1993, 98, 18401-18412.	3.3	54
49	Intercomparison of tropospheric ozone models: Ozone transport in a complex tropopause folding event. Journal of Geophysical Research, 2003, 108, .	3.3	54
50	Airborne measurements of aerosol optical properties related to early spring transport of mid-latitude sources into the Arctic. Atmospheric Chemistry and Physics, 2010, 10, 5011-5030.	1.9	54
51	Arctic air pollution: Challenges and opportunities for the next decade. Elementa, 0, 4, 000104.	1.1	53
52	Source identification and airborne chemical characterisation of aerosol pollution from long-range transport over Greenland during POLARCAT summer campaign 2008. Atmospheric Chemistry and Physics, 2011, 11, 10097-10123.	1.9	52
53	Local Arctic air pollution: Sources and impacts. Ambio, 2017, 46, 453-463.	2.8	52
54	In-situ observation of Asian pollution transported into the Arctic lowermost stratosphere. Atmospheric Chemistry and Physics, 2011, 11, 10975-10994.	1.9	49

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55	The impact of meteorology on the interannual growth rate of atmospheric methane. Geophysical Research Letters, 2002, 29, 8-1-8-4.	1.5	48
56	Lagrangian analysis of low altitude anthropogenic plume processing across the North Atlantic. Atmospheric Chemistry and Physics, 2008, 8, 7737-7754.	1.9	48
57	Indirect influence of ozone depletion on climate forcing by clouds. Nature, 1994, 372, 348-351.	13.7	47
58	Using GOME NO₂ satellite data to examine regional differences in TOMCAT model performance. Atmospheric Chemistry and Physics, 2004, 4, 1895-1912.	1.9	45
59	Greenhouse gas radiative forcing: Effects of averaging and inhomogeneities in trace gas distribution. Quarterly Journal of the Royal Meteorological Society, 1998, 124, 2099-2127.	1.0	43
60	Biomass burning influence on high-latitude tropospheric ozone and reactive nitrogen in summer 2008: a multi-model analysis based on POLMIP simulations. Atmospheric Chemistry and Physics, 2015, 15, 6047-6068.	1.9	43
61	A tropospheric ozone-lightning climate feedback. Geophysical Research Letters, 1996, 23, 1037-1040.	1.5	41
62	Potential for photochemical ozone formation in the troposphere over the North Atlantic as derived from aircraft observations during ACSOE. Journal of Geophysical Research, 2002, 107, ACH 14-1-ACH 14-14.	3.3	41
63	Quantifying black carbon deposition over the Greenland ice sheet from forest fires in Canada. Geophysical Research Letters, 2017, 44, 7965-7974.	1.5	41
64	Emission location dependent ozone depletion potentials for very short-lived halogenated species. Atmospheric Chemistry and Physics, 2010, 10, 12025-12036.	1.9	38
65	Estimation of mixing in the troposphere from Lagrangian trace gas reconstructions during longâ€range pollution plume transport. Journal of Geophysical Research, 2009, 114, .	3.3	37
66	Transport and mixing between airmasses in cold frontal regions during Dynamics and Chemistry of Frontal Zones (DCFZ). Journal of Geophysical Research, 2003, 108, .	3.3	36
67	Sensitivity of the CH4growth rate to changes in CH4emissions from natural gas and coal. Journal of Geophysical Research, 1996, 101, 14387-14397.	3.3	34
68	Pollution transport from North America to Greenland during summer 2008. Atmospheric Chemistry and Physics, 2013, 13, 3825-3848.	1.9	34
69	Anthropogenic and forest fire pollution aerosol transported to the Arctic: observations from the POLARCAT-France spring campaign. Atmospheric Chemistry and Physics, 2012, 12, 6437-6454.	1.9	33
70	Transport of aerosol to the Arctic: analysis of CALIOP and French aircraft data during the spring 2008 POLARCAT campaign. Atmospheric Chemistry and Physics, 2014, 14, 8235-8254.	1.9	33
71	Further estimates of radiative forcing due to tropospheric ozone changes. Geophysical Research Letters, 1996, 23, 3321-3324.	1.5	32
72	Ship emissions measurement in the Arctic by plume intercepts of the Canadian Coast Guard icebreaker <i>Amundsen</i> from the <i>Polar 6</i> aircraft platform. Atmospheric Chemistry and Physics, 2016, 16, 7899-7916.	1.9	32

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73	Stratosphere-troposphere exchange: Chemical sensitivity to mixing. Journal of Geophysical Research, 2001, 106, 4717-4731.	3.3	30
74	Physical and chemical properties of pollution aerosol particles transported from North America to Greenland as measured during the POLARCAT summer campaign. Atmospheric Chemistry and Physics, 2011, 11, 10947-10963.	1.9	30
75	Analysis of IASI tropospheric O₃ data over the Arctic during POLARCAT campaigns in 2008. Atmospheric Chemistry and Physics, 2012, 12, 7371-7389.	1.9	29
76	Is methane-driven deglaciation consistent with the ice core record?. Journal of Geophysical Research, 1996, 101, 28627-28635.	3.3	27
77	Air mass origins influencing TTL chemical composition over West Africa during 2006 summer monsoon. Atmospheric Chemistry and Physics, 2010, 10, 10753-10770.	1.9	26
78	Improvements to the WRF-Chem 3.5.1 model for quasi-hemispheric simulations of aerosols and ozone in the Arctic. Geoscientific Model Development, 2017, 10, 3661-3677.	1.3	26
79	Overview: Integrative and Comprehensive Understanding on Polar Environments (iCUPE) â€“ concept and initial results. Atmospheric Chemistry and Physics, 2020, 20, 8551-8592.	1.9	26
80	Transport of anthropogenic and biomass burning aerosols from Europe to the Arctic during spring 2008. Atmospheric Chemistry and Physics, 2015, 15, 3831-3850.	1.9	25
81	Sensitivity of the atmospheric CH4 growth rate to global temperature changes observed from 1980 to 1992. Tellus, Series B: Chemical and Physical Meteorology, 1997, 49, 409-416.	0.8	24
82	A Lagrangian model of air-mass photochemistry and mixing using a trajectory ensemble: the Cambridge Tropospheric Trajectory model of Chemistry And Transport (CiTTyCAT) version 4.2. Geoscientific Model Development, 2012, 5, 193-221.	1.3	24
83	Cross-polar transport and scavenging of Siberian aerosols containing black carbon during the 2012 ACCESS summer campaign. Atmospheric Chemistry and Physics, 2017, 17, 10969-10995.	1.9	24
84	Assimilation of IASI satellite CO fields into a global chemistry transport model for validation against aircraft measurements. Atmospheric Chemistry and Physics, 2012, 12, 4493-4512.	1.9	23
85	Global Chemistry Simulations in the AMMA Multimodel Intercomparison Project. Bulletin of the American Meteorological Society, 2010, 91, 611-624.	1.7	21
86	Atmospheric composition of West Africa: highlights from the AMMA international program. Atmospheric Science Letters, 2011, 12, 13-18.	0.8	21
87	Current and Future Arctic Aerosols and Ozone From Remote Emissions and Emerging Local Sourcesâ€"Modeled Source Contributions and Radiative Effects. Journal of Geophysical Research D: Atmospheres, 2018, 123, 12,942.	1.2	21
88	Flaring emissions in Africa: Distribution, evolution and comparison with current inventories. Atmospheric Environment, 2019, 199, 423-434.	1.9	21
89	Vertical distributions of sulfur species simulated by large scale atmospheric models in COSAM: Comparison with observations. Tellus, Series B: Chemical and Physical Meteorology, 2001, 53, 646-672.	0.8	20
90	Impact of deep convection in the tropical tropopause layer in West Africa: in-situ observations and mesoscale modelling. Atmospheric Chemistry and Physics, 2011, 11, 201-214.	1.9	18

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91	Multi-model evaluation of short-lived pollutant distributions over east Asia during summer 2008. Atmospheric Chemistry and Physics, 2016, 16, 10765-10792.	1.9	17
92	Modelling the response of tropospheric trace species to changing source gas concentrations. Atmospheric Environment Part A General Topics, 1991, 25, 1863-1871.	1.3	15
93	Model evaluation of short-lived climate forcers for the Arctic Monitoring and Assessment Programme: a multi-species, multi-model study. Atmospheric Chemistry and Physics, 2022, 22, 5775-5828.	1.9	15
94	More ozone over North America. Nature, 2010, 463, 307-308.	13.7	13
95	Emission sources contributing to tropospheric ozone over Equatorial Africa during the summer monsoon. Atmospheric Chemistry and Physics, 2011, 11, 13395-13419.	1.9	13
96	Toward a novel highâ€resolution modeling approach for the study of chemical evolution of pollutant plumes during longâ€range transport. Journal of Geophysical Research, 2010, 115, .	3.3	12
97	Tropospheric ozone over Siberia in spring 2010: remote influences and stratospheric intrusion. Tellus, Series B: Chemical and Physical Meteorology, 2013, 65, 19688.	0.8	12
98	Air pollution impacts due to petroleum extraction in the Norwegian Sea during the ACCESS aircraft campaign. Elementa, 2017, 5, .	1.1	12
99	Characterising the effect of large-scale model resolution upon calculated OH production using MOZAIC data. Geophysical Research Letters, 2002, 29, 55-1.	1.5	11
100	Analysis of the latitudinal variability of tropospheric ozone in the Arctic using the large number of aircraft and ozonesonde observations in early summer 2008. Atmospheric Chemistry and Physics, 2016, 16, 13341-13358.	1.9	10
101	Differences in Ozone and Particulate Matter Between Ground Level and 20Âm Aloft are Frequent During Wintertime Surfaceâ€Based Temperature Inversions in Fairbanks, Alaska. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	8
102	Uptake on fractal particles: 2. Applications. Journal of Geophysical Research, 2000, 105, 3917-3928.	3.3	7
103	Subsonic aircraft and ozone trends. Journal of Atmospheric Chemistry, 1996, 23, 89-105.	1.4	6
104	Theoretical studies of carbon monoxide distributions, budgets and trends. Chemosphere, 1999, 1, 19-31.	1.2	6
105	Fostering multidisciplinary research on interactions between chemistry, biology, and physics within the coupled cryosphere-atmosphere system. Elementa, 2019, 7, .	1.1	6
106	Arctic observations and sustainable development goals â€" Contributions and examples from ERA-PLANET iCUPE data. Environmental Science and Policy, 2022, 132, 323-336.	2.4	6
107	Sensitivity of the atmospheric CH4 growth rate to global temperature changes observed from 1980 to 1992. Tellus, Series B: Chemical and Physical Meteorology, 1997, 49, 409-416.	0.8	5
108	Tropospheric ozone production related to West African city emissions during the 2006 wet season AMMA campaign. Atmospheric Chemistry and Physics, 2011, 11, 6349-6366.	1.9	5

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109	Impact of shipping emissions on air pollution and pollutant deposition over the Barents Sea. Environmental Pollution, 2022, 298, 118832.	3.7	5
110	Modelling the global sources and sinks of radiatively active gases. Philosophical Transactions of the Royal Society: Physical and Engineering Sciences, 1995, 351, 397-411.	1.0	4
111	A three-dimensional modeling study of the correlations of210Pb with HNO3and peroxyacetylnitrate (PAN) at remote oceanic sites. Journal of Geophysical Research, 2000, 105, 1947-1956.	3.3	4
112	Rainfall parameterization in an off-line chemical transport model. Atmospheric Science Letters, 2004, 5, 82-88.	0.8	4
113	Greenhouse gas radiative forcing: Effects of averaging and inhomogeneities in trace gas distribution. , 1998, 124, 2099.		4
114	Climate and CCN. Nature, 1995, 375, 111-111.	13.7	2
115	Implications of NOy emissions from subsonic aircraft at cruise altitude. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 1997, 211, 157-168.	0.7	2
116	Modelling the impacts of aircraft traffic on the chemical composition of the upper troposphere. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2003, 217, 237-243.	0.7	2
117	Quantifying Emerging Local Anthropogenic Emissions in the Arctic Region: The ACCESS Aircraft Campaign Experiment. Bulletin of the American Meteorological Society, 2016, 2016, 441-460.	1.7	2
118	Modelling the effects of mixing processes on the composition of the free troposphere using a three-dimensional chemical transport model. Environmental Modelling and Software, 2004, 19, 391-399.	1.9	1
119	Comparison of Distributions of Atmospheric Gas Admixture Concentrations Measured by Remote and In Situ Instruments over the Russian Sector of the Arctic. Atmospheric and Oceanic Optics, 2018, 31, 626-634.	0.6	1
120	Raman lidars for a better understanding of pollution in the Arctic System (PARCS). EPJ Web of Conferences, 2018, 176, 04005.	0.1	0