

Stephen R Arnold

List of Publications by Year in descending order

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Version: 2024-02-01

101
papers

5,564
citations

93792

39
h-index

107981

68
g-index

121
all docs

121
docs citations

121
times ranked

8971
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploiting satellite measurements to explore uncertainties in UK bottom-up NO _x emission estimates. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 4323-4338.	1.9	9
2	Observations and modelling of glyoxal in the tropical Atlantic marine boundary layer. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 5535-5557.	1.9	3
3	The contribution of emission sources to the future air pollution disease burden in China. <i>Environmental Research Letters</i> , 2022, 17, 064027.	2.2	5
4	Emission Sector Impacts on Air Quality and Public Health in China From 2010 to 2020. <i>GeoHealth</i> , 2022, 6, .	1.9	5
5	Sensitivity of Air Pollution Exposure and Disease Burden to Emission Changes in China Using Machine Learning Emulation. <i>GeoHealth</i> , 2022, 6, .	1.9	13
6	Late-spring and summertime tropospheric ozone and NO ₂ in western Siberia and the Russian Arctic: regional model evaluation and sensitivities. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 4677-4697.	1.9	11
7	Production of HONO from NO ₂ uptake on illuminated TiO ₂ aerosol particles and following the illumination of mixed TiO ₂ •ammonium nitrate particles. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 5755-5775.	1.9	14
8	Regional Policies Targeting Residential Solid Fuel and Agricultural Emissions Can Improve Air Quality and Public Health in the Greater Bay Area and Across China. <i>GeoHealth</i> , 2021, 5, e2020GH000341.	1.9	9
9	Statistical Emulation of Winter Ambient Fine Particulate Matter Concentrations From Emission Changes in China. <i>GeoHealth</i> , 2021, 5, e2021GH000391.	1.9	12
10	Reviews and syntheses: Arctic fire regimes and emissions in the 21st century. <i>Biogeosciences</i> , 2021, 18, 5053-5083.	1.3	59
11	Air Pollution From Forest and Vegetation Fires in Southeast Asia Disproportionately Impacts the Poor. <i>GeoHealth</i> , 2021, 5, e2021GH000418.	1.9	31
12	Large Enhancements in Southern Hemisphere Satellite-Observed Trace Gases Due to the 2019/2020 Australian Wildfires. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD034892.	1.2	8
13	Impact of the 2019/2020 Australian Megafires on Air Quality and Health. <i>GeoHealth</i> , 2021, 5, e2021GH000454.	1.9	16
14	Assessing costs of Indonesian fires and the benefits of restoring peatland. <i>Nature Communications</i> , 2021, 12, 7044.	5.8	26
15	Substantial Increases in Eastern Amazon and Cerrado Biomass Burning-Sourced Tropospheric Ozone. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL084143.	1.5	16
16	Impact of weather types on UK ambient particulate matter concentrations. <i>Atmospheric Environment: X</i> , 2020, 5, 100061.	0.8	12
17	Air quality and health impacts of vegetation and peat fires in Equatorial Asia during 2004–2015. <i>Environmental Research Letters</i> , 2020, 15, 094054.	2.2	30
18	Quantifying the transboundary contribution of nitrogen oxides to UK air quality. <i>Atmospheric Science Letters</i> , 2020, 21, e955.	0.8	2

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19	Forest and Land Fires Are Mainly Associated with Deforestation in Riau Province, Indonesia. Remote Sensing, 2020, 12, 3.	1.8	32
20	A complete transition to clean household energy can save oneâ€¼quarter of the healthy life lost to particulate matter pollution exposure in India. Environmental Research Letters, 2020, 15, 094096.	2.2	15
21	The impact of COVID-19 control measures on air quality in China. Environmental Research Letters, 2020, 15, 084021.	2.2	69
22	Tropospheric ozone radiative forcing uncertainty due to pre-industrial fire and biogenic emissions. Atmospheric Chemistry and Physics, 2020, 20, 10937-10951.	1.9	15
23	Pollutant emission reductions deliver decreased PM _{2.5} -caused mortality across China during 2015â€“2017. Atmospheric Chemistry and Physics, 2020, 20, 11683-11695.	1.9	19
24	Constraining remote oxidation capacity with ATom observations. Atmospheric Chemistry and Physics, 2020, 20, 7753-7781.	1.9	36
25	Impact of the June 2018 Saddleworth Moor wildfires on air quality in northern England. Environmental Research Communications, 2020, 2, 031001.	0.9	5
26	Impact of El NiÃ±oâ€™Southern Oscillation on the interannual variability of methane and tropospheric ozone. Atmospheric Chemistry and Physics, 2019, 19, 8669-8686.	1.9	33
27	Relationship Between Fire and Forest Cover Loss in Riau Province, Indonesia Between 2001 and 2012. Forests, 2019, 10, 889.	0.9	21
28	Exploring the impacts of anthropogenic emission sectors on PM _{2.5} and human health in South and East Asia. Atmospheric Chemistry and Physics, 2019, 19, 11887-11910.	1.9	55
29	New estimate of particulate emissions from Indonesian peat fires in 2015. Atmospheric Chemistry and Physics, 2019, 19, 11105-11121.	1.9	63
30	Have Synergies Between Nitrogen Deposition and Atmospheric CO ₂ Driven the Recent Enhancement of the Terrestrial Carbon Sink?. Global Biogeochemical Cycles, 2019, 33, 163-180.	1.9	37
31	Fostering multidisciplinary research on interactions between chemistry, biology, and physics within the coupled cryosphere-atmosphere system. Elementa, 2019, 7, .	1.1	6
32	Residential energy use emissions dominate health impacts from exposure to ambient particulate matter in India. Nature Communications, 2018, 9, 617.	5.8	149
33	Impact on short-lived climate forcers increases projected warming due to deforestation. Nature Communications, 2018, 9, 157.	5.8	86
34	Substantial large-scale feedbacks between natural aerosols and climate. Nature Geoscience, 2018, 11, 44-48.	5.4	50
35	Influence of the wintertime North Atlantic Oscillation on European tropospheric composition: an observational and modelling study. Atmospheric Chemistry and Physics, 2018, 18, 8389-8408.	1.9	6
36	Current and Future Disease Burden From Ambient Ozone Exposure in India. GeoHealth, 2018, 2, 334-355.	1.9	17

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37	Widespread changes in UK air quality observed from space. <i>Atmospheric Science Letters</i> , 2018, 19, e817.	0.8	19
38	Photochemical box modelling of volcanic SO ₂ oxidation: isotopic constraints. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 17909-17931.	1.9	13
39	Simulated Global Climate Response to Tropospheric Ozone-Induced Changes in Plant Transpiration. <i>Geophysical Research Letters</i> , 2018, 45, 13070-13079.	1.5	20
40	Local Arctic Air Pollution: A Neglected but Serious Problem. <i>Earth's Future</i> , 2018, 6, 1385-1412.	2.4	96
41	Substantial changes in air pollution across China during 2015-2017. <i>Environmental Research Letters</i> , 2018, 13, 114012.	2.2	158
42	Stringent Emission Control Policies Can Provide Large Improvements in Air Quality and Public Health in India. <i>GeoHealth</i> , 2018, 2, 196-211.	1.9	27
43	PAN-EURASIAN EXPERIMENT (PEEX) PROGRAM: AN OVERVIEW OF THE FIRST 5 YEARS IN OPERATION AND FUTURE PROSPECTS. <i>Geography, Environment, Sustainability</i> , 2018, 11, 6-19.	0.6	11
44	Quantifying the causes of differences in tropospheric OH within global models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 1983-2007.	1.2	27
45	Impact on short-lived climate forcers (SLCFs) from a realistic land-use change scenario via changes in biogenic emissions. <i>Faraday Discussions</i> , 2017, 200, 101-120.	1.6	7
46	Potential controls of isoprene in the surface ocean. <i>Global Biogeochemical Cycles</i> , 2017, 31, 644-662.	1.9	50
47	Basin-Scale Observations of Monoterpenes in the Arctic and Atlantic Oceans. <i>Environmental Science & Technology</i> , 2017, 51, 10449-10458.	4.6	16
48	Highlights from the Faraday Discussion meeting "Atmospheric chemistry in the Anthropocene", York, 2017. <i>Chemical Communications</i> , 2017, 53, 12494-12498.	2.2	0
49	Sensitivity of midnineteenth century tropospheric ozone to atmospheric chemistry-vegetation interactions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 2452-2473.	1.2	18
50	Sensitivity of tropospheric ozone to chemical kinetic uncertainties in air masses influenced by anthropogenic and biomass burning emissions. <i>Geophysical Research Letters</i> , 2017, 44, 7472-7481.	1.5	11
51	The TOMCAT global chemical transport model v1.6: description of chemical mechanism and model evaluation. <i>Geoscientific Model Development</i> , 2017, 10, 3025-3057.	1.3	35
52	The impact of synoptic weather on UK surface ozone and implications for premature mortality. <i>Environmental Research Letters</i> , 2016, 11, 124004.	2.2	48
53	The status and challenge of global fire modelling. <i>Biogeosciences</i> , 2016, 13, 3359-3375.	1.3	274
54	An observationally constrained evaluation of the oxidative capacity in the tropical western Pacific troposphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 7461-7488.	1.2	18

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55	What drives interannual variation in tree ring oxygen isotopes in the Amazon?. <i>Geophysical Research Letters</i> , 2016, 43, 11,831.	1.5	27
56	Intercomparison and evaluation of satellite peroxyacetyl nitrate observations in the upper troposphere–lower stratosphere. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 13541-13559.	1.9	15
57	Impacts of aviation fuel sulfur content on climate and human health. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 10521-10541.	1.9	33
58	Pan-Eurasian Experiment (PEEX): towards a holistic understanding of the feedbacks and interactions in the land–atmosphere–ocean–society continuum in the northern Eurasian region. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 14421-14461.	1.9	57
59	Multi-model study of chemical and physical controls on transport of anthropogenic and biomass burning pollution to the Arctic. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 3575-3603.	1.9	83
60	Biomass burning influence on high-latitude tropospheric ozone and reactive nitrogen in summer 2008: a multi-model analysis based on POLMIP simulations. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 6047-6068.	1.9	43
61	The POLARCAT Model Intercomparison Project (POLMIP): overview and evaluation with observations. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 6721-6744.	1.9	62
62	Satellite constraint on the tropospheric ozone radiative effect. <i>Geophysical Research Letters</i> , 2015, 42, 5074-5081.	1.5	39
63	Description and evaluation of tropospheric chemistry and aerosols in the Community Earth System Model (CESM1.2). <i>Geoscientific Model Development</i> , 2015, 8, 1395-1426.	1.3	159
64	Arctic Air Pollution: New Insights from POLARCAT-IPY. <i>Bulletin of the American Meteorological Society</i> , 2014, 95, 1873-1895.	1.7	107
65	The influence of synoptic weather regimes on NO_2 air quality: analysis of satellite column NO_2 . <i>Atmospheric Science Letters</i> , 2014, 15, 211-217.	0.8	41
66	Contribution of vegetation and peat fires to particulate air pollution in Southeast Asia. <i>Environmental Research Letters</i> , 2014, 9, 094006.	2.2	101
67	Coupling dry deposition to vegetation phenology in the Community Earth System Model: Implications for the simulation of surface O_3 . <i>Geophysical Research Letters</i> , 2014, 41, 2988-2996.	1.5	113
68	The complex response of Arctic aerosol to sea-ice retreat. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 7543-7557.	1.9	81
69	Perspectives and Integration in SOLAS Science. <i>Springer Earth System Sciences</i> , 2014, , 247-306.	0.1	2
70	PAN EURASIAN EXPERIMENT (PEEX) - A RESEARCH INITIATIVE MEETING THE GRAND CHALLENGES OF THE CHANGING ENVIRONMENT OF THE NORTHERN PAN-EURASIAN ARCTIC-BOREAL AREAS. <i>Geography, Environment, Sustainability</i> , 2014, 7, 13-48.	0.6	19
71	Methanol, acetaldehyde, and acetone in the surface waters of the Atlantic Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 5412-5425.	1.0	63
72	The Mediterranean summertime ozone maximum: global emission sensitivities and radiative impacts. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 2331-2345.	1.9	93

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73	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. <i>Geoscientific Model Development</i> , 2012, 5, 193-221.	1.3	24
74	The scavenging processes controlling the seasonal cycle in Arctic sulphate and black carbon aerosol. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 6775-6798.	1.9	179
75	Multiannual Observations of Acetone, Methanol, and Acetaldehyde in Remote Tropical Atlantic Air: Implications for Atmospheric OVOC Budgets and Oxidative Capacity. <i>Environmental Science & Technology</i> , 2012, 46, 11028-11039.	4.6	70
76	Observations of increased tropical rainfall preceded by air passage over forests. <i>Nature</i> , 2012, 489, 282-285.	13.7	483
77	Evidence for El Niño–Southern Oscillation (ENSO) influence on Arctic CO interannual variability through biomass burning emissions. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	45
78	Intercontinental trans-boundary contributions to ozone-induced crop yield losses in the Northern Hemisphere. <i>Biogeosciences</i> , 2012, 9, 271-292.	1.3	81
79	Iodine containing species in the remote marine boundary layer: A link to oceanic phytoplankton. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	28
80	Source identification and airborne chemical characterisation of aerosol pollution from long-range transport over Greenland during POLARCAT summer campaign 2008. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 10097-10123.	1.9	52
81	Investigating organic aerosol loading in the remote marine environment. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 8847-8860.	1.9	54
82	Episodes of cross-polar transport in the Arctic troposphere during July 2008 as seen from models, satellite, and aircraft observations. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 3631-3651.	1.9	47
83	Seasonal characteristics of tropical marine boundary layer air measured at the Cape Verde Atmospheric Observatory. <i>Journal of Atmospheric Chemistry</i> , 2010, 67, 87-140.	1.4	97
84	Relationships between atmospheric organic compounds and air-mass exposure to marine biology. <i>Environmental Chemistry</i> , 2010, 7, 232.	0.7	35
85	Crops and climate change: progress, trends, and challenges in simulating impacts and informing adaptation. <i>Journal of Experimental Botany</i> , 2009, 60, 2775-2789.	2.4	319
86	Evaluation of the global oceanic isoprene source and its impacts on marine organic carbon aerosol. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 1253-1262.	1.9	173
87	Globally significant oceanic source of organic carbon aerosol. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	125
88	Evidence for marine production of monoterpenes. <i>Environmental Chemistry</i> , 2008, 5, 391.	0.7	133
89	Chemical composition observed over the mid-Atlantic and the detection of pollution signatures far from source regions. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	70
90	Statistical inference of OH concentrations and air mass dilution rates from successive observations of nonmethane hydrocarbons in single air masses. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	31

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91	Evaluation of the MOCAGE chemistry transport model during the ICARTT/ITOP experiment. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	76
92	Establishing Lagrangian connections between observations within air masses crossing the Atlantic during the International Consortium for Atmospheric Research on Transport and Transformation experiment. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	60
93	A Lagrangian analysis of the impact of transport and transformation on the ozone stratification observed in the free troposphere during the ESCOMPTE campaign. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 3487-3503.	1.9	9
94	Comparison and visualisation of high-resolution transport modelling with aircraft measurements. <i>Atmospheric Science Letters</i> , 2005, 6, 164-170.	0.8	26
95	A three-dimensional model study of the effect of new temperature-dependent quantum yields for acetone photolysis. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	99
96	Pressure and temperature-dependent quantum yields for the photodissociation of acetone between 279 and 327.5 nm. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	59
97	Photodissociation of acetone: Atmospheric implications of temperature-dependent quantum yields. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	42
98	Correction to "Pressure and temperature-dependent quantum yields for the photodissociation of acetone between 279 and 327.5 nm". <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	3
99	Rapid uplift of nonmethane hydrocarbons in a cold front over central Europe. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	36
100	Estimating photochemically produced ozone throughout a domain using flight data and a Lagrangian model. <i>Journal of Geophysical Research</i> , 2003, 108, n/a-n/a.	3.3	56
101	Constraining tropospheric mixing timescales using airborne observations and numerical models. <i>Atmospheric Chemistry and Physics</i> , 2003, 3, 1023-1035.	1.9	6