

# Francis D Pope

## List of Publications by Year in descending order

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103  
papers

3,407  
citations

147801

31  
h-index

175258

52  
g-index

149  
all docs

149  
docs citations

149  
times ranked

4144  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluation of a low-cost optical particle counter (Alphasense OPC-N2) for ambient air monitoring. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 709-720.	3.1	253
2	The viscosity of atmospherically relevant organic particles. <i>Nature Communications</i> , 2018, 9, 956.	12.8	252
3	Saturation Vapor Pressures and Transition Enthalpies of Low-Volatility Organic Molecules of Atmospheric Relevance: From Dicarboxylic Acids to Complex Mixtures. <i>Chemical Reviews</i> , 2015, 115, 4115-4156.	47.7	196
4	Direct imaging of changes in aerosol particle viscosity upon hydration and chemical aging. <i>Chemical Science</i> , 2016, 7, 1357-1367.	7.4	101
5	Pollen grains are efficient cloud condensation nuclei. <i>Environmental Research Letters</i> , 2010, 5, 044015.	5.2	91
6	Studies of Single Aerosol Particles Containing Malonic Acid, Glutaric Acid, and Their Mixtures with Sodium Chloride. I. Hygroscopic Growth. <i>Journal of Physical Chemistry A</i> , 2010, 114, 5335-5341.	2.5	88
7	Reconciliation of essential process parameters for an enhanced predictability of Arctic stratospheric ozone loss and its climate interactions (RECONCILE): activities and results. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 9233-9268.	4.9	88
8	60 years of UK visibility measurements: impact of meteorology and atmospheric pollutants on visibility. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 2085-2101.	4.9	86
9	Effects of short-term exposure to particulate matter air pollution on cognitive performance. <i>Scientific Reports</i> , 2019, 9, 8237.	3.3	84
10	Ultraviolet Absorption Spectrum of Chlorine Peroxide, ClOOCl. <i>Journal of Physical Chemistry A</i> , 2007, 111, 4322-4332.	2.5	83
11	Stratospheric aerosol particles and solar-radiation management. <i>Nature Climate Change</i> , 2012, 2, 713-719.	18.8	81
12	Traffic pollution: A search for solutions for a city like Nairobi. <i>Cities</i> , 2018, 82, 100-107.	5.6	74
13	Fluorescent lifetime imaging of atmospheric aerosols: a direct probe of aerosol viscosity. <i>Faraday Discussions</i> , 2013, 165, 343.	3.2	69
14	Optical trapping and Raman spectroscopy of solid particles. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 11426-11434.	2.8	68
15	Understanding the environmental impacts of large fissure eruptions: Aerosol and gas emissions from the 2014-2015 Holuhraun eruption (Iceland). <i>Earth and Planetary Science Letters</i> , 2017, 472, 309-322.	4.4	59
16	Air quality during and after festivals: Aerosol concentrations, composition and health effects. <i>Atmospheric Research</i> , 2019, 227, 220-232.	4.1	57
17	Effect of aerosol composition on the performance of low-cost optical particle counter correction factors. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 1181-1193.	3.1	56
18	Airborne particulate matter monitoring in Kenya using calibrated low-cost sensors. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 15403-15418.	4.9	55

#	ARTICLE	IF	CITATIONS
19	Studies of Single Aerosol Particles Containing Malonic Acid, Glutaric Acid, and Their Mixtures with Sodium Chloride. II. Liquid-State Vapor Pressures of the Acids. <i>Journal of Physical Chemistry A</i> , 2010, 114, 10156-10165.	2.5	54
20	Uptake of Gaseous Hydrogen Peroxide by Submicrometer Titanium Dioxide Aerosol as a Function of Relative Humidity. <i>Environmental Science &amp; Technology</i> , 2010, 44, 1360-1365.	10.0	53
21	Molecular composition of organic aerosols at urban background and road tunnel sites using ultra-high resolution mass spectrometry. <i>Faraday Discussions</i> , 2016, 189, 51-68.	3.2	50
22	Characterization of Traffic-Related Particulate Matter Emissions in a Road Tunnel in Birmingham, UK: Trace Metals and Organic Molecular Markers. <i>Aerosol and Air Quality Research</i> , 2017, 17, 117-130.	2.1	46
23	Radical Formation by Fine Particulate Matter Associated with Highly Oxygenated Molecules. <i>Environmental Science &amp; Technology</i> , 2019, 53, 12506-12518.	10.0	45
24	Evaluation of EDAR vehicle emissions remote sensing technology. <i>Science of the Total Environment</i> , 2017, 609, 1464-1474.	8.0	42
25	Real-world assessment of vehicle air pollutant emissions subset by vehicle type, fuel and EURO class: New findings from the recent UK EDAR field campaigns, and implications for emissions restricted zones. <i>Science of the Total Environment</i> , 2020, 734, 139416.	8.0	41
26	Importance of relative humidity in the oxidative ageing of organic aerosols: case study of the ozonolysis of maleic acid aerosol. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 12181-12195.	4.9	40
27	Hygroscopic growth and cloud activation of pollen: a laboratory and modelling study. <i>Atmospheric Science Letters</i> , 2012, 13, 289-295.	1.9	40
28	Absorption Cross Sections of Formaldehyde at Wavelengths from 300 to 340 nm at 294 and 245 K. <i>Journal of Physical Chemistry A</i> , 2006, 110, 11645-11653.	2.5	38
29	Dynamic viscosity mapping of the oxidation of squalene aerosol particles. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 30385-30393.	2.8	37
30	Cloud condensation nucleation activities of calcium carbonate and its atmospheric ageing products. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 32194-32203.	2.8	36
31	Visibility as a proxy for air quality in East Africa. <i>Environmental Research Letters</i> , 2020, 15, 084002.	5.2	36
32	The effect of humidity on the ozonolysis of unsaturated compounds in aerosol particles. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 8023.	2.8	31
33	Heterogeneous reaction of $\text{N}_2\text{O}_5$ with airborne $\text{TiO}_2$ particles and its implication for stratospheric particle injection. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 6035-6048.	4.9	31
34	Comprehensive modeling study of ozonolysis of oleic acid aerosol based on real-time, online measurements of aerosol composition. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 4364-4377.	3.3	31
35	Nitrous acid (HONO) emissions under real-world driving conditions from vehicles in a UK road tunnel. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 5231-5248.	4.9	31
36	Fluorescence lifetime imaging of optically levitated aerosol: a technique to quantitatively map the viscosity of suspended aerosol particles. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 21710-21719.	2.8	30

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37	Analysis of new particle formation (NPF) events at nearby rural, urban background and urban roadside sites. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 5679-5694.	4.9	30
38	Air quality assessment in three East African cities using calibrated low-cost sensors with a focus on road-based hotspots. <i>Environmental Research Communications</i> , 2021, 3, 075007.	2.3	30
39	Heterogeneous Interaction of SiO <sub>2</sub> with N <sub>2</sub> O <sub>5</sub> : Aerosol Flow Tube and Single Particle Optical Levitation Raman Spectroscopy Studies. <i>Journal of Physical Chemistry A</i> , 2014, 118, 8817-8827.	2.5	28
40	A new electrodynamic balance (EDB) design for low-temperature studies: application to immersion freezing of pollen extract bioaerosols. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 1183-1195.	3.1	28
41	Ozonolysis of Maleic Acid Aerosols: Effect upon Aerosol Hygroscopicity, Phase and Mass. <i>Environmental Science &amp; Technology</i> , 2010, 44, 6656-6660.	10.0	27
42	The impact of air pollutants on ambulance dispatches: A systematic review and meta-analysis of acute effects. <i>Environmental Pollution</i> , 2019, 254, 112769.	7.5	26
43	Investigation of vehicle cold start primary NO <sub>2</sub> emissions inferred from ambient monitoring data in the UK and their implications for urban air quality. <i>Atmospheric Environment</i> , 2019, 199, 402-414.	4.1	26
44	Ultraviolet Photolysis of HCHO: Absolute HCO Quantum Yields by Direct Detection of the HCO Radical Photoproduct. <i>Journal of Physical Chemistry A</i> , 2008, 112, 12437-12448.	2.5	25
45	High-resolution absorption cross sections of formaldehyde at wavelengths from 313 to 320 nm. <i>Physical Chemistry Chemical Physics</i> , 2005, 7, 79.	2.8	24
46	Photochemistry of formaldehyde under tropospheric conditions. <i>Faraday Discussions</i> , 2005, 130, 59.	3.2	23
47	Impact of extreme temperatures on ambulance dispatches in London, UK. <i>Environmental Research</i> , 2020, 182, 109100.	7.5	21
48	Investigating the Association between Wood and Charcoal Domestic Cooking, Respiratory Symptoms and Acute Respiratory Infections among Children Aged Under 5 Years in Uganda: A Cross-Sectional Analysis of the 2016 Demographic and Health Survey. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 3974.	2.6	21
49	The effect of meteorological conditions and atmospheric composition in the occurrence and development of new particle formation (NPF) events in Europe. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 3345-3370.	4.9	21
50	On the interpretation of in situ HONO observations via photochemical steady state. <i>Faraday Discussions</i> , 2016, 189, 191-212.	3.2	20
51	Impact of Air Temperature on London Ambulance Call-Out Incidents and Response Times. <i>Climate</i> , 2017, 5, 61.	2.8	19
52	Evaluation of ultrafine particle concentrations and size distributions at London Heathrow Airport. <i>Atmospheric Environment</i> , 2020, 222, 117148.	4.1	19
53	Determination of the impact of rainfall on road accidents in Thailand. <i>Heliyon</i> , 2021, 7, e06061.	3.2	18
54	Effectiveness of interventions to reduce household air pollution from solid biomass fuels and improve maternal and child health outcomes in low- and middle-income countries: a systematic review protocol. <i>Systematic Reviews</i> , 2021, 10, 33.	5.3	18

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55	Laboratory and modelling study of the hygroscopic properties of two model humic acid aerosol particles. <i>Journal of Aerosol Science</i> , 2010, 41, 457-467.	3.8	17
56	Rapid interrogation of the physical and chemical characteristics of salbutamol sulphate aerosol from a pressurised metered-dose inhaler (pMDI). <i>Chemical Communications</i> , 2014, 50, 15499-15502.	4.1	16
57	Heterogeneous reaction of ClONO <sub>2</sub> with TiO <sub>2</sub> and SiO <sub>2</sub> aerosol particles: implications for stratospheric particle injection for climate engineering. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 15397-15412.	4.9	16
58	Measurement of the Raman spectra and hygroscopicity of four pharmaceutical aerosols as they travel from pressurised metered dose inhalers (pMDI) to a model lung. <i>International Journal of Pharmaceutics</i> , 2017, 520, 59-69.	5.2	16
59	Size-dependent chemical ageing of oleic acid aerosol under dry and humidified conditions. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 15561-15579.	4.9	15
60	Remember, remember the 5th of November; gunpowder, particles and smog. <i>Weather</i> , 2015, 70, 320-324.	0.7	14
61	1064 nm Dispersive Raman Microspectroscopy and Optical Trapping of Pharmaceutical Aerosols. <i>Analytical Chemistry</i> , 2018, 90, 8838-8844.	6.5	14
62	Assessing the sources of particles at an urban background site using both regulatory instruments and low-cost sensors – a comparative study. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 4139-4155.	3.1	14
63	Is the ocean surface a source of nitrous acid (HONO) in the marine boundary layer?. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 18213-18225.	4.9	14
64	Temperature dependent structured absorption spectra of molecular chlorine. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 15318.	2.8	13
65	Quantification of within-vehicle exposure to NO <sub>x</sub> and particles: Variation with outside air quality, route choice and ventilation options. <i>Atmospheric Environment</i> , 2020, 240, 117810.	4.1	13
66	A phenomenology of new particle formation (NPF) at 13 European sites. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 11905-11925.	4.9	13
67	Effectiveness of interventions to reduce household air pollution from solid biomass fuels and improve maternal and child health outcomes in low and middle income countries: A systematic review and meta-analysis. <i>Indoor Air</i> , 2022, 32, .	4.3	12
68	A study on the performance of low-cost sensors for source apportionment at an urban background site. <i>Atmospheric Measurement Techniques</i> , 2022, 15, 4047-4061.	3.1	12
69	Kinetics, Mechanism, and Thermochemistry of the Gas Phase Reaction of Atomic Chlorine with Dimethyl Sulfoxide. <i>Journal of Physical Chemistry A</i> , 2006, 110, 6874-6885.	2.5	11
70	Real-World Contribution of Electrification and Replacement Scenarios to the Fleet Emissions in West Midlands Boroughs, UK. <i>Atmosphere</i> , 2021, 12, 332.	2.3	11
71	Impacts of emergency health protection measures upon air quality, traffic and public health: evidence from Oxford, UK. <i>Environmental Pollution</i> , 2022, 293, 118584.	7.5	11
72	Measurement of the fluorescence lifetime of GFP in high refractive index levitated droplets using FLIM. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 14704-14711.	2.8	10

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73	The contribution of cooking appliances and residential traffic proximity to aerosol personal exposure. <i>Journal of Environmental Health Science &amp; Engineering</i> , 2021, 19, 307-318.	3.0	10
74	Evaluation of aircraft emissions at London Heathrow Airport. <i>Atmospheric Environment</i> , 2021, 254, 118226.	4.1	10
75	The Diamond League athletic series: does the air quality sparkle?. <i>International Journal of Biometeorology</i> , 2021, 65, 1427-1442.	3.0	9
76	Comparison of Respiratory Health Impacts Associated with Wood and Charcoal Biomass Fuels: A Population-Based Analysis of 475,000 Children from 30 Low- and Middle-Income Countries. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 9305.	2.6	9
77	Biomass cooking carbon monoxide levels in commercial canteens in Kigali, Rwanda. <i>Archives of Environmental and Occupational Health</i> , 2021, 76, 75-85.	1.4	8
78	Investigating Cooking Activity Patterns and Perceptions of Air Quality Interventions among Women in Urban Rwanda. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 5984.	2.6	8
79	The UV and visible spectra of chlorine peroxide: Constraining the atmospheric photolysis rate. <i>Geophysical Research Letters</i> , 2014, 41, 1781-1788.	4.0	7
80	Indoor PM <sub>2.5</sub> characteristics and CO concentration in households using biomass fuel in Kigali, Rwanda. <i>International Journal of Environmental Studies</i> , 2020, 77, 998-1011.	1.6	7
81	Corrigendum to "Heterogeneous reaction of N <sub>2</sub> O <sub>5</sub> with airborne TiO <sub>2</sub> particles and its implication for stratospheric particle injection" published in <i>Atmos. Chem. Phys.</i> , 14, 6035-6048, 2014. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 8233-8234.	4.9	6
82	Women's Perceptions and Attitudes to Household Air Pollution Exposure and Capability to Change Cooking Behaviours in Urban Rwanda. <i>Sustainability</i> , 2022, 14, 1608.	3.2	6
83	A temperature-dependent kinetics study of the reaction of O(3P) with (CH <sub>3</sub> ) <sub>2</sub> SO. <i>International Journal of Chemical Kinetics</i> , 2002, 34, 156-161.	1.6	5
84	Trends in Local Air Quality 1970-2014. <i>Issues in Environmental Science and Technology</i> , 2015, , 58-106.	0.4	5
85	"Can't see the forest for the trees": The importance of fungi in the context of UK tree planting. <i>Food and Energy Security</i> , 0, , .	4.3	5
86	Field Calibration and Evaluation of an Internet-of-Things-Based Particulate Matter Sensor. <i>Frontiers in Environmental Science</i> , 2022, 9, .	3.3	5
87	Cooking outdoors or with cleaner fuels does not increase malarial risk in children under 5 years: a cross-sectional study of 17 sub-Saharan African countries. <i>Malaria Journal</i> , 2022, 21, 133.	2.3	4
88	Amateur runners more influenced than elite runners by temperature and air pollution during the UK's Great North Run half marathon. <i>Science of the Total Environment</i> , 2022, 842, 156825.	8.0	4
89	Mie scattering from optically levitated mixed sulfuric acid-silica core-shell aerosols: observation of core-shell morphology for atmospheric science. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 5813-5822.	2.8	3
90	Association of household cooking location behaviour with acute respiratory infections among children aged under five years; a cross sectional analysis of 30 Sub-Saharan African Demographic and Health Surveys. <i>Atmospheric Environment</i> , 2022, 276, 119055.	4.1	3

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91	Differentiating Semi-Volatile and Solid Particle Events Using Low-Cost Lung-Deposited Surface Area and Black Carbon Sensors. <i>Atmosphere</i> , 2022, 13, 747.	2.3	3
92	Mass concentration measurements of autumn bioaerosol using low-cost sensors in a mature temperate woodland free-air carbon dioxide enrichment (FACE) experiment: investigating the role of meteorology and carbon dioxide levels. <i>Biogeosciences</i> , 2022, 19, 2653-2669.	3.3	3
93	Machine learning techniques to improve the field performance of low-cost air quality sensors. <i>Atmospheric Measurement Techniques</i> , 2022, 15, 3261-3278.	3.1	3
94	WORKSHOP ON THE SOURCES, QUANTIFICATION AND HEALTH IMPLICATIONS OF BIOAEROSOLS WORKSHOP REPORT. <i>American Journal of Pharmacology and Toxicology</i> , 2014, 9, 189-199.	0.7	2
95	Chemical complexity of the urban atmosphere and its consequences: general discussion. <i>Faraday Discussions</i> , 2016, 189, 137-167.	3.2	1
96	Urban case studies: general discussion. <i>Faraday Discussions</i> , 2016, 189, 473-514.	3.2	1
97	Differential health responses to climate change projections in three UK cities as measured by ambulance dispatch data. <i>Environmental Advances</i> , 2022, 7, 100146.	4.8	1
98	Assessing the effectiveness of low-cost air quality monitors for identifying volcanic SO <sub>2</sub> and PM downwind from Masaya volcano, Nicaragua. <i>Volcanica</i> , 2022, 5, 33-59.	1.8	1
99	Timescales of mixing and of chemistry: general discussion. <i>Faraday Discussions</i> , 2016, 189, 253-276.	3.2	0
100	Insights into HONO sources from observations during a solar eclipse. <i>Environmental Science Atmospheres</i> , 2021, 1, 395-405.	2.4	0
101	Replacing wood with charcoal fuel prevents 1.7 million acute respiratory infections worldwide; evidence from 360,000 children in 30 low-and-middle-income countries. <i>ISEE Conference Abstracts</i> , 2021, 2021, .	0.0	0
102	Use of biomass cooking fuel and risk of respiratory symptoms and Acute Respiratory Infections in Ugandan children aged under 5 years: cross-sectional analysis. , 2020, , .		0
103	Assessing the effectiveness of low-cost air quality monitors for identifying volcanic SO <sub>2</sub> and PM downwind from Masaya volcano, Nicaragua. <i>Volcanica</i> , 2022, 5, 13-39.	1.8	0