

# William James Bloss

## List of Publications by Year in descending order

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107  
papers

5,916  
citations

57758

44  
h-index

91884

69  
g-index

142  
all docs

142  
docs citations

142  
times ranked

5099  
citing authors

#	ARTICLE	IF	CITATIONS
1	Implications of regional surface ozone increases on visibility degradation in southeast China. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 64, 19625.	1.6	10
2	Suppression of anthropogenic secondary organic aerosol formation by isoprene. <i>Npj Climate and Atmospheric Science</i> , 2022, 5, .	6.8	9
3	Field Calibration and Evaluation of an Internet-of-Things-Based Particulate Matter Sensor. <i>Frontiers in Environmental Science</i> , 2022, 9, .	3.3	5
4	Modelling the Impact of National vs. Local Emission Reduction on PM <sub>2.5</sub> in the West Midlands, UK Using WRF-CMAQ. <i>Atmosphere</i> , 2022, 13, 377.	2.3	9
5	Chemical characteristics and source apportionment of particulate matter (PM <sub>2.5</sub> ) in Dammam, Saudi Arabia: Impact of dust storms. <i>Atmospheric Environment: X</i> , 2022, 14, 100164.	1.4	3
6	Rapid rise in premature mortality due to anthropogenic air pollution in fast-growing tropical cities from 2005 to 2018. <i>Science Advances</i> , 2022, 8, eabm4435.	10.3	31
7	Evaluating the real changes of air quality due to clean air actions using a machine learning technique: Results from 12 Chinese mega-cities during 2013–2020. <i>Chemosphere</i> , 2022, 300, 134608.	8.2	14
8	Insights into air pollution chemistry and sulphate formation from nitrous acid (HONO) measurements during haze events in Beijing. <i>Faraday Discussions</i> , 2021, 226, 223-238.	3.2	9
9	Insights into HONO sources from observations during a solar eclipse. <i>Environmental Science Atmospheres</i> , 2021, 1, 395-405.	2.4	0
10	Abrupt but smaller than expected changes in surface air quality attributable to COVID-19 lockdowns. <i>Science Advances</i> , 2021, 7, .	10.3	209
11	Evaluating the sensitivity of radical chemistry and ozone formation to ambient VOCs and NO <sub>x</sub> and O <sub>3</sub> in Beijing. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 2125-2147.	4.9	64
12	Long-term trends in air quality in major cities in the UK and India: a view from space. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 6275-6296.	4.9	31
13	Enhanced wintertime oxidation of VOCs via sustained radical sources in the urban atmosphere. <i>Environmental Pollution</i> , 2021, 274, 116563.	7.5	15
14	Observations of speciated isoprene nitrates in Beijing: implications for isoprene chemistry. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 6315-6330.	4.9	4
15	Atmospheric conditions and composition that influence PM <sub>2.5</sub> oxidative potential in Beijing, China. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 5549-5573.	4.9	38
16	Using Task Farming to Optimise a Street-Scale Resolution Air Quality Model of the West Midlands (UK). <i>Atmosphere</i> , 2021, 12, 983.	2.3	9
17	Chemical source profiles of fine particles for five different sources in Delhi. <i>Chemosphere</i> , 2021, 274, 129913.	8.2	25
18	In situ ozone production is highly sensitive to volatile organic compounds in Delhi, India. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 13609-13630.	4.9	28

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19	Is the ocean surface a source of nitrous acid (HONO) in the marine boundary layer?. Atmospheric Chemistry and Physics, 2021, 21, 18213-18225.	4.9	14
20	Four-year assessment of ambient particulate matter and trace gases in the Delhi-NCR region of India. Sustainable Cities and Society, 2020, 54, 102003.	10.4	105
21	Quantification of within-vehicle exposure to NO <sub>x</sub> and particles: Variation with outside air quality, route choice and ventilation options. Atmospheric Environment, 2020, 240, 117810.	4.1	13
22	Effect of aerosol composition on the performance of low-cost optical particle counter correction factors. Atmospheric Measurement Techniques, 2020, 13, 1181-1193.	3.1	56
23	AtChem (version 1), an open-source box model for the Master Chemical Mechanism. Geoscientific Model Development, 2020, 13, 169-183.	3.6	42
24	An instrument for in situ measurement of total ozone reactivity. Atmospheric Measurement Techniques, 2020, 13, 1655-1670.	3.1	4
25	Elevated levels of OH observed in haze events during wintertime in central Beijing. Atmospheric Chemistry and Physics, 2020, 20, 14847-14871.	4.9	62
26	Nitrous acid (HONO) emissions under real-world driving conditions from vehicles in a UK road tunnel. Atmospheric Chemistry and Physics, 2020, 20, 5231-5248.	4.9	31
27	Interference from alkenes in chemiluminescent NO <sub>x</sub> measurements. Atmospheric Measurement Techniques, 2020, 13, 5977-5991.	3.1	10
28	Using routing apps to model real-time road traffic emissions. Weather, 2020, 75, 341-346.	0.7	0
29	Introduction to the special issue "In-depth study of air pollution sources and processes within Beijing and its surrounding region (APHH-Beijing)". Atmospheric Chemistry and Physics, 2019, 19, 7519-7546.	4.9	95
30	Intercomparison of nitrous acid (HONO) measurement techniques in a megacity (Beijing). Atmospheric Measurement Techniques, 2019, 12, 6449-6463.	3.1	44
31	Validity and limitations of simple reaction kinetics to calculate concentrations of organic compounds from ion counts in PTR-MS. Atmospheric Measurement Techniques, 2019, 12, 6193-6208.	3.1	53
32	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. Atmospheric Environment, 2019, 199, 402-414.	4.1	26
33	Surface-atmosphere exchange of inorganic water-soluble gases and associated ions in bulk aerosol above agricultural grassland pre- and postfertilisation. Atmospheric Chemistry and Physics, 2018, 18, 16953-16978.	4.9	11
34	Global impact of nitrate photolysis in sea-salt aerosol on NO <sub>x</sub> , OH, and O <sub>3</sub> in the marine boundary layer. Atmospheric Chemistry and Physics, 2018, 18, 11185-11203.	4.9	62
35	The atmospheric impacts of monoterpene ozonolysis on global stabilised Criegee intermediate budgets and SO <sub>2</sub> oxidation: experiment, theory and modelling. Atmospheric Chemistry and Physics, 2018, 18, 6095-6120.	4.9	36
36	A nocturnal atmospheric loss of CH <sub>2</sub> I <sub>2</sub> in the remote marine boundary layer. Journal of Atmospheric Chemistry, 2017, 74, 145-156.	3.2	4

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37	Source apportionment of fine and coarse particles at a roadside and urban background site in London during the 2012 summer ClearLo campaign. <i>Environmental Pollution</i> , 2017, 220, 766-778.	7.5	125
38	Effects of halogens on European air-quality. <i>Faraday Discussions</i> , 2017, 200, 75-100.	3.2	43
39	Large eddy simulation of reactive pollutants in a deep urban street canyon: Coupling dynamics with O <sub>3</sub> -NO <sub>x</sub> -VOC chemistry. <i>Environmental Pollution</i> , 2017, 224, 171-184.	7.5	37
40	Evaluation of EDAR vehicle emissions remote sensing technology. <i>Science of the Total Environment</i> , 2017, 609, 1464-1474.	8.0	42
41	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
42	Evidence for renoxification in the tropical marine boundary layer. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 4081-4092.	4.9	47
43	HONO measurement by differential photolysis. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 2483-2495.	3.1	15
44	Timescales of mixing and of chemistry: general discussion. <i>Faraday Discussions</i> , 2016, 189, 253-276.	3.2	0
45	Chemical complexity of the urban atmosphere and its consequences: general discussion. <i>Faraday Discussions</i> , 2016, 189, 137-167.	3.2	1
46	Coupling dynamics and chemistry in the air pollution modelling of street canyons: A review. <i>Environmental Pollution</i> , 2016, 214, 690-704.	7.5	96
47	Modelling photochemical pollutants in a deep urban street canyon: Application of a coupled two-box model approximation. <i>Atmospheric Environment</i> , 2016, 143, 86-107.	4.1	11
48	Urban case studies: general discussion. <i>Faraday Discussions</i> , 2016, 189, 473-514.	3.2	1
49	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
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	Remember, remember the 5th of November; gunpowder, particles and smog. <i>Weather</i> , 2015, 70, 320-324.	0.7	14
52	Sources and contributions of wood smoke during winter in London: assessing local and regional influences. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 3149-3171.	4.9	76
53	Mapping gas-phase organic reactivity and concomitant secondary organic aerosol formation: chemometric dimension reduction techniques for the deconvolution of complex atmospheric data sets. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 8077-8100.	4.9	10
54	Atmospheric isoprene ozonolysis: impacts of stabilised Criegee intermediate reactions with SO <sub>2</sub> , H <sub>2</sub> O and dimethyl sulfide. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 9521-9536.	4.9	62

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55	Modelling the dispersion and transport of reactive pollutants in a deep urban street canyon: Using large-eddy simulation. <i>Environmental Pollution</i> , 2015, 200, 42-52.	7.5	68
56	New directions: Air pollution challenges for developing megacities like Delhi. <i>Atmospheric Environment</i> , 2015, 122, 657-661.	4.1	117
57	Insights into the Formation and Evolution of Individual Compounds in the Particulate Phase during Aromatic Photo-Oxidation. <i>Environmental Science &amp; Technology</i> , 2015, 49, 13168-13178.	10.0	42
58	Theoretical study of the reactions of Criegee intermediates with ozone, alkylhydroperoxides, and carbon monoxide. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 23847-23858.	2.8	81
59	Kinetics of stabilised Criegee intermediates derived from alkene ozonolysis: reactions with SO <sub>2</sub> , H <sub>2</sub> O and decomposition under boundary layer conditions. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 4076-4088.	2.8	117
60	Meteorology, Air Quality, and Health in London: The ClearLo Project. <i>Bulletin of the American Meteorological Society</i> , 2015, 96, 779-804.	3.3	105
61	Modelling segregation effects of heterogeneous emissions on ozone levels in idealised urban street canyons: Using photochemical box models. <i>Environmental Pollution</i> , 2014, 188, 132-143.	7.5	18
62	Secondary organic aerosol formation and composition from the photo-oxidation of methyl chavicol (estragole). <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 5349-5368.	4.9	13
63	Urban street canyons: Coupling dynamics, chemistry and within-canyon chemical processing of emissions. <i>Atmospheric Environment</i> , 2013, 68, 127-142.	4.1	50
64	NO <sub>3</sub> radical production from the reaction between the Criegee intermediate CH <sub>2</sub> OO and NO <sub>2</sub> . <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 17070.	2.8	116
65	Radical Product Yields from the Ozonolysis of Short Chain Alkenes under Atmospheric Boundary Layer Conditions. <i>Journal of Physical Chemistry A</i> , 2013, 117, 12468-12483.	2.5	39
66	Presenting SAPUSS: Solving Aerosol Problem by Using Synergistic Strategies in Barcelona, Spain. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 8991-9019.	4.9	27
67	Summertime NO <sub>x</sub> measurements during the CHABLIS campaign: can source and sink estimates unravel observed diurnal cycles?. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 989-1002.	4.9	36
68	Atmospheric chemistry and physics in the atmosphere of a developed megacity (London): an overview of the REPARTEE experiment and its conclusions. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 3065-3114.	4.9	124
69	Uncertainties in gas-phase atmospheric iodine chemistry. <i>Atmospheric Environment</i> , 2012, 57, 219-232.	4.1	41
70	Total radical yields from tropospheric ethene ozonolysis. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 11002.	2.8	90
71	Iodine monoxide at a clean marine coastal site: observations of high frequency variations and inhomogeneous distributions. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 6721-6733.	4.9	26
72	Modelling atmospheric composition in urban street canyons. <i>Weather</i> , 2011, 66, 106-110.	0.7	7

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73	Coupling of HO <sub>2</sub> and halogen chemistry in the antarctic boundary layer. Atmospheric Chemistry and Physics, 2010, 10, 10187-10209.	4.9	56
74	Distribution of gaseous and particulate organic composition during dark $\alpha$ -pinene ozonolysis. Atmospheric Chemistry and Physics, 2010, 10, 2893-2917.	4.9	122
75	Iodine-mediated coastal particle formation: an overview of the Reactive Halogens in the Marine Boundary Layer (RHAMBLe) Roscoff coastal study. Atmospheric Chemistry and Physics, 2010, 10, 2975-2999.	4.9	125
76	Measurements of iodine monoxide at a semi polluted coastal location. Atmospheric Chemistry and Physics, 2010, 10, 3645-3663.	4.9	19
77	Night-time chemistry above London: measurements of NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> from the BT Tower. Atmospheric Chemistry and Physics, 2010, 10, 9781-9795.	4.9	65
78	Alkyl nitrate photochemistry during the tropospheric organic chemistry experiment. Atmospheric Environment, 2010, 44, 773-785.	4.1	26
79	A Multidimensional Study of the Reaction CH <sub>2</sub> I <sub>2</sub> : Products and Atmospheric Implications. ChemPhysChem, 2010, 11, 3928-3941.	2.1	43
80	Communicating the value of atmospheric services. Meteorological Applications, 2010, 17, 243-250.	2.1	31
81	Rate of Gas Phase Association of Hydroxyl Radical and Nitrogen Dioxide. Science, 2010, 330, 646-649.	12.6	123
82	Novel measurements of atmospheric iodine species by resonance fluorescence. Journal of Atmospheric Chemistry, 2008, 60, 51-70.	3.2	47
83	Chemistry of the Antarctic Boundary Layer and the Interface with Snow: an overview of the CHABLIS campaign. Atmospheric Chemistry and Physics, 2008, 8, 3789-3803.	4.9	73
84	Measurement and interpretation of gas phase formaldehyde concentrations obtained during the CHABLIS campaign in coastal Antarctica. Atmospheric Chemistry and Physics, 2008, 8, 4085-4093.	4.9	23
85	On the vertical distribution of boundary layer halogens over coastal Antarctica: implications for O <sub>3</sub> , HO <sub>2</sub> , NO <sub>x</sub> and the Hg lifetime. Atmospheric Chemistry and Physics, 2008, 8, 887-900.	4.9	153
86	DMS and MSA measurements in the Antarctic Boundary Layer: impact of BrO on MSA production. Atmospheric Chemistry and Physics, 2008, 8, 2985-2997.	4.9	87
87	Photolysis frequency measurement techniques: results of a comparison within the ACCENT project. Atmospheric Chemistry and Physics, 2008, 8, 5373-5391.	4.9	99
88	Free radical modelling studies during the UK TORCH Campaign in Summer 2003. Atmospheric Chemistry and Physics, 2007, 7, 167-181.	4.9	151
89	Observations of OH and HO <sub>2</sub> radicals in coastal Antarctica. Atmospheric Chemistry and Physics, 2007, 7, 4171-4185.	4.9	69
90	Night-time radical chemistry during the NAMBLEX campaign. Atmospheric Chemistry and Physics, 2007, 7, 587-598.	4.9	28

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91	Design of and initial results from a Highly Instrumented Reactor for Atmospheric Chemistry (HIRAC). Atmospheric Chemistry and Physics, 2007, 7, 5371-5390.	4.9	46
92	Detection of iodine monoxide radicals in the marine boundary layer using laser induced fluorescence spectroscopy. Journal of Atmospheric Chemistry, 2007, 58, 19-39.	3.2	61
93	Peroxy radical chemistry and the control of ozone photochemistry at Mace Head, Ireland during the summer of 2002. Atmospheric Chemistry and Physics, 2006, 6, 2193-2214.	4.9	70
94	OH and HO <sub>2</sub> chemistry during NAMBLEX: roles of oxygenates, halogen oxides and heterogeneous uptake. Atmospheric Chemistry and Physics, 2006, 6, 1135-1153.	4.9	82
95	Concentrations of OH and HO <sub>2</sub> radicals during NAMBLEX: measurements and steady state analysis. Atmospheric Chemistry and Physics, 2006, 6, 1435-1453.	4.9	91
96	The North Atlantic Marine Boundary Layer Experiment(NAMBLEX). Overview of the campaign held at Mace Head, Ireland, in summer 2002. Atmospheric Chemistry and Physics, 2006, 6, 2241-2272.	4.9	65
97	Ozone photochemistry and elevated isoprene during the UK heatwave of august 2003. Atmospheric Environment, 2006, 40, 7598-7613.	4.1	122
98	Development of a detailed chemical mechanism (MCMv3.1) for the atmospheric oxidation of aromatic hydrocarbons. Atmospheric Chemistry and Physics, 2005, 5, 641-664.	4.9	442
99	The oxidative capacity of the troposphere: Coupling of field measurements of OH and a global chemistry transport model. Faraday Discussions, 2005, 130, 425.	3.2	108
100	Impact of halogen monoxide chemistry upon boundary layer OH and HO <sub>2</sub> concentrations at a coastal site. Geophysical Research Letters, 2005, 32, .	4.0	113
101	Validation of the calibration of a laser-induced fluorescence instrument for the measurement of OH radicals in the atmosphere. Atmospheric Chemistry and Physics, 2004, 4, 571-583.	4.9	35
102	Application of a compact all solid-state laser system to the in situ detection of atmospheric OH, HO <sub>2</sub> , NO and IO by laser-induced fluorescence. Journal of Environmental Monitoring, 2003, 5, 21-28.	2.1	38
103	Rate coefficient for the BrO + HO <sub>2</sub> reaction at 298 K. Physical Chemistry Chemical Physics, 2002, 4, 3639-3647.	2.8	27
104	Kinetics and Products of the IO + BrO Reaction. Journal of Physical Chemistry A, 2001, 105, 7855-7864.	2.5	26
105	Kinetics and Products of the IO Self-Reaction. Journal of Physical Chemistry A, 2001, 105, 7840-7854.	2.5	105
106	Kinetics of the ClO Self-Reaction and 210 nm Absorption Cross Section of the ClO Dimer. Journal of Physical Chemistry A, 2001, 105, 11226-11239.	2.5	57
107	OIO and the atmospheric cycle of iodine. Geophysical Research Letters, 1999, 26, 1857-1860.	4.0	72