

David C Beddows

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

112
papers

5,221
citations

42
h-index

69
g-index

113
ext. papers

6,129
ext. citations

6.5
avg, IF

5.64
L-index

#	Paper	IF	Citations
112	Leaching material from Antarctic seaweeds and penguin guano affects cloud-relevant aerosol production.. <i>Science of the Total Environment</i> , 2022 , 154772	10.2	
111	Open ocean and coastal new particle formation from sulfuric acid and amines around the Antarctic Peninsula. <i>Nature Geoscience</i> , 2021 , 14, 383-388	18.3	20
110	Assessing the sources of particles at an urban background site using both regulatory instruments and low-cost sensors in a comparative study. <i>Atmospheric Measurement Techniques</i> , 2021 , 14, 4139-4155	4	2
109	Differentiation of coarse-mode anthropogenic, marine and dust particles in the High Arctic islands of Svalbard. <i>Atmospheric Chemistry and Physics</i> , 2021 , 21, 11317-11335	6.8	1
108	PM10 and PM2.5 emission factors for non-exhaust particles from road vehicles: Dependence upon vehicle mass and implications for battery electric vehicles. <i>Atmospheric Environment</i> , 2021 , 244, 117886	5.3	34
107	A phenomenology of new particle formation (NPF) at 13 European sites. <i>Atmospheric Chemistry and Physics</i> , 2021 , 21, 11905-11925	6.8	4
106	In situ ozone production is highly sensitive to volatile organic compounds in Delhi, India. <i>Atmospheric Chemistry and Physics</i> , 2021 , 21, 13609-13630	6.8	2
105	Long-term trends in nitrogen oxides concentrations and on-road vehicle emission factors in Copenhagen, London and Stockholm. <i>Environmental Pollution</i> , 2021 , 290, 118105	9.3	2
104	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	10.2	23
103	Contribution of Water-Soluble Organic Matter from Multiple Marine Geographic Eco-Regions to Aerosols around Antarctica. <i>Environmental Science & Technology</i> , 2020 , 54, 7807-7817	10.3	8
102	On the annual variability of Antarctic aerosol size distributions at Halley Research Station. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 4461-4476	6.8	13
101	Long-term trends in PM mass and particle number concentrations in urban air: The impacts of mitigation measures and extreme events due to changing climates. <i>Environmental Pollution</i> , 2020 , 263, 114500	9.3	19
100	Molecular insights into new particle formation in Barcelona, Spain. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 10029-10045	6.8	14
99	Variability in gaseous elemental mercury at Villum Research Station, Station Nord, in North Greenland from 1999 to 2017. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 13253-13265	6.8	12
98	Arctic ship-based evidence of new particle formation events in the Chukchi and East Siberian Seas. <i>Atmospheric Environment</i> , 2020 , 223, 117232	5.3	2
97	Source apportionment of particle number size distribution in urban background and traffic stations in four European cities. <i>Environment International</i> , 2020 , 135, 105345	12.9	54
96	Size-resolved physico-chemical characterization of diesel exhaust particles and efficiency of exhaust aftertreatment. <i>Atmospheric Environment</i> , 2020 , 222, 117021	5.3	12

95	Receptor modelling of both particle composition and size distribution from a background site in London, UK in a two-step approach. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 4863-4876	6.8	6
94	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	6.8	20
93	Introduction to the special issue In-depth study of air pollution sources and processes within Beijing and its surrounding region (APHH-Beijing) <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 7519-7546	6.8	73
92	Ultrafine particles and PM in the air of cities around the world: Are they representative of each other?. <i>Environment International</i> , 2019 , 129, 118-135	12.9	57
91	Biogenic Sources of Ice Nucleating Particles at the High Arctic Site Villum Research Station. <i>Environmental Science & Technology</i> , 2019 , 53, 10580-10590	10.3	18
90	Simultaneous Detection of Alkylamines in the Surface Ocean and Atmosphere of the Antarctic Sympagic Environment. <i>ACS Earth and Space Chemistry</i> , 2019 , 3, 854-862	3.2	23
89	Interpretation of particle number size distributions measured across an urban area during the FASTER campaign. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 39-55	6.8	21
88	Cluster analysis of urban ultrafine particles size distributions. <i>Atmospheric Pollution Research</i> , 2019 , 10, 45-52	4.5	19
87	Simultaneous measurements of aerosol size distributions at three sites in the European high Arctic. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 7377-7395	6.8	12
86	Surface ozone climatology of South Eastern Brazil and the impact of biomass burning events. <i>Journal of Environmental Management</i> , 2019 , 252, 109645	7.9	17
85	Observations of highly oxidized molecules and particle nucleation in the atmosphere of Beijing. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 14933-14947	6.8	17
84	Identification of specific sources of airborne particles emitted from within a complex industrial (steelworks) site. <i>Atmospheric Environment</i> , 2018 , 183, 122-134	5.3	6
83	Characterization of distinct Arctic aerosol accumulation modes and their sources. <i>Atmospheric Environment</i> , 2018 , 183, 1-10	5.3	17
82	Novel insights on new particle formation derived from a pan-european observing system. <i>Scientific Reports</i> , 2018 , 8, 1482	4.9	34
81	Regions of open water and melting sea ice drive new particle formation in North East Greenland. <i>Scientific Reports</i> , 2018 , 8, 6109	4.9	21
80	Abiotic and biotic sources influencing spring new particle formation in North East Greenland. <i>Atmospheric Environment</i> , 2018 , 190, 126-134	5.3	21
79	Diesel exhaust nanoparticles and their behaviour in the atmosphere. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2018 , 474, 20180492	2.4	16
78	Vertical and horizontal distribution of regional new particle formation events in Madrid. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 16601-16618	6.8	21

77	Global analysis of continental boundary layer new particle formation based on long-term measurements. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 14737-14756	6.8	73
76	Source apportionment of fine and coarse particles at a roadside and urban background site in London during the 2012 summer ClearfLo campaign. <i>Environmental Pollution</i> , 2017 , 220, 766-778	9.3	94
75	Distinct high molecular weight organic compound (HMW-OC) types in aerosol particles collected at a coastal urban site. <i>Atmospheric Environment</i> , 2017 , 171, 118-125	5.3	2
74	Efficacy of Recent Emissions Controls on Road Vehicles in Europe and Implications for Public Health. <i>Scientific Reports</i> , 2017 , 7, 1152	4.9	23
73	Antarctic sea ice region as a source of biogenic organic nitrogen in aerosols. <i>Scientific Reports</i> , 2017 , 7, 6047	4.9	43
72	Arctic sea ice melt leads to atmospheric new particle formation. <i>Scientific Reports</i> , 2017 , 7, 3318	4.9	67
71	Sources of sub-micrometre particles near a major international airport. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 12379-12403	6.8	31
70	Phenomenology of high-ozone episodes in NE Spain. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 2817-2838	6.8	33
69	On the simultaneous deployment of two single-particle mass spectrometers at an urban background and a roadside site during SAPUSS. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 9693-9710	6.8	19
68	Size-dependent chemical ageing of oleic acid aerosol under dry and humidified conditions. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 15561-15579	6.8	10
67	Evaporation of traffic-generated nanoparticles during advection from source. <i>Atmospheric Environment</i> , 2016 , 125, 1-7	5.3	22
66	Source apportionment of wide range particle size spectra and black carbon collected at the airport of Venice (Italy). <i>Atmospheric Environment</i> , 2016 , 139, 56-74	5.3	25
65	Fine Iron Aerosols Are Internally Mixed with Nitrate in the Urban European Atmosphere. <i>Environmental Science & Technology</i> , 2016 , 50, 4212-20	10.3	17
64	Detection of brake wear aerosols by aerosol time-of-flight mass spectrometry. <i>Atmospheric Environment</i> , 2016 , 129, 167-175	5.3	15
63	Source Apportionment of the Lung Dose of Ambient Submicrometre Particulate Matter. <i>Aerosol and Air Quality Research</i> , 2016 , 16, 1548-1557	4.6	11
62	A European aerosol phenomenology-5: Climatology of black carbon optical properties at 9 regional background sites across Europe. <i>Atmospheric Environment</i> , 2016 , 145, 346-364	5.3	94
61	Differential health effects of short-term exposure to source-specific particles in London, U.K. <i>Environment International</i> , 2016 , 97, 246-253	12.9	30
60	Determinants of aerosol lung-deposited surface area variation in an urban environment. <i>Science of the Total Environment</i> , 2015 , 517, 38-47	10.2	35

59	Meteorology, Air Quality, and Health in London: The ClearLo Project. <i>Bulletin of the American Meteorological Society</i> , 2015 , 96, 779-804	6.1	84
58	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	6.8	61
57	Traffic and nucleation events as main sources of ultrafine particles in high-insolation developed world cities. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 5929-5945	6.8	118
56	Receptor modelling of both particle composition and size distribution from a background site in London, UK. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 10107-10125	6.8	63
55	A new methodology to assess the performance and uncertainty of source apportionment models II: The results of two European intercomparison exercises. <i>Atmospheric Environment</i> , 2015 , 123, 240-250	5.3	54
54	Local and regional components of aerosol in a heavily trafficked street canyon in central London derived from PMF and cluster analysis of single-particle ATOFMS spectra. <i>Environmental Science & Technology</i> , 2015 , 49, 3330-40	10.3	35
53	Mass and number size distributions of particulate matter components: comparison of an industrial site and an urban background site. <i>Science of the Total Environment</i> , 2014 , 475, 29-38	10.2	73
52	Source apportionment of single particles sampled at the industrially polluted town of Port Talbot, United Kingdom by ATOFMS. <i>Atmospheric Environment</i> , 2014 , 97, 155-165	5.3	30
51	Characteristics of tyre dust in polluted air: Studies by single particle mass spectrometry (ATOFMS). <i>Atmospheric Environment</i> , 2014 , 94, 224-230	5.3	49
50	Ozone levels in European and USA cities are increasing more than at rural sites, while peak values are decreasing. <i>Environmental Pollution</i> , 2014 , 192, 295-9	9.3	163
49	Receptor modelling of airborne particulate matter in the vicinity of a major steelworks site. <i>Science of the Total Environment</i> , 2014 , 490, 488-500	10.2	60
48	Simplifying aerosol size distributions modes simultaneously detected at four monitoring sites during SAPUSS. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 2973-2986	6.8	26
47	Size distribution, mixing state and source apportionment of black carbon aerosol in London during wintertime. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 10061-10084	6.8	127
46	Variations in tropospheric submicron particle size distributions across the European continent 2008-2009. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 4327-4348	6.8	31
45	Intercomparison and evaluation of global aerosol microphysical properties among AeroCom models of a range of complexity. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 4679-4713	6.8	114
44	An evaluation of some issues regarding the use of aethalometers to measure woodsmoke concentrations. <i>Atmospheric Environment</i> , 2013 , 80, 540-548	5.3	68
43	The effect of varying primary emissions on the concentrations of inorganic aerosols predicted by the enhanced UK Photochemical Trajectory Model. <i>Atmospheric Environment</i> , 2013 , 69, 211-218	5.3	17
42	Bulk deposition close to a Municipal Solid Waste incinerator: one source among many. <i>Science of the Total Environment</i> , 2013 , 456-457, 392-403	10.2	18

41	Presenting SAPUSS: Solving Aerosol Problem by Using Synergistic Strategies in Barcelona, Spain. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 8991-9019	6.8	22
40	Light-absorbing carbon in Europe [measurement and modelling, with a focus on residential wood combustion emissions. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 8719-8738	6.8	43
39	Enhancements to the UK Photochemical Trajectory Model for simulation of secondary inorganic aerosol. <i>Atmospheric Environment</i> , 2012 , 57, 278-288	5.3	2
38	Comparison of three techniques for analysis of data from an Aerosol Time-of-Flight Mass Spectrometer. <i>Atmospheric Environment</i> , 2012 , 61, 316-326	5.3	29
37	Mobility particle size spectrometers: harmonization of technical standards and data structure to facilitate high quality long-term observations of atmospheric particle number size distributions. <i>Atmospheric Measurement Techniques</i> , 2012 , 5, 657-685	4	53 ¹
36	On the contribution of organics to the North East Atlantic aerosol number concentration. <i>Environmental Research Letters</i> , 2012 , 7, 044013	6.2	14
35	Comparison of methods for evaluation of wood smoke and estimation of UK ambient concentrations. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 8271-8283	6.8	77
34	Urban aerosol size distributions over the Mediterranean city of Barcelona, NE Spain. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 10693-10707	6.8	58
33	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	6.8	102
32	General overview: European Integrated project on Aerosol Cloud Climate and Air Quality interactions (EUCAARI) [Integrating aerosol research from nano to global scales. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 13061-13143	6.8	23 ¹
31	A statistical analysis of North East Atlantic (submicron) aerosol size distributions. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 12567-12578	6.8	28
30	Remarkable dynamics of nanoparticles in the urban atmosphere. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 6623-6637	6.8	84
29	Number size distributions and seasonality of submicron particles in Europe 2008-2009. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 5505-5538	6.8	172
28	PMF analysis of wide-range particle size spectra collected on a major highway. <i>Environmental Science & Technology</i> , 2011 , 45, 5522-8	10.3	146
27	Particulate oxidative burden associated with firework activity. <i>Environmental Science & Technology</i> , 2010 , 44, 8295-301	10.3	72
26	An Enhanced Procedure for the Merging of Atmospheric Particle Size Distribution Data Measured Using Electrical Mobility and Time-of-Flight Analysers. <i>Aerosol Science and Technology</i> , 2010 , 44, 930-938 ³⁻⁴		26
25	Magnetised positronium. <i>Journal of Physics: Conference Series</i> , 2010 , 199, 012005	0.3	2
24	Size distribution of airborne particles controls outcome of epidemiological studies. <i>Science of the Total Environment</i> , 2010 , 409, 289-93	10.2	34

23	Cluster analysis of rural, urban, and curbside atmospheric particle size data. <i>Environmental Science & Technology</i> , 2009 , 43, 4694-700	10.3	90
22	Comparison of average particle number emission factors for heavy and light duty vehicles derived from rolling chassis dynamometer and field studies. <i>Atmospheric Environment</i> , 2008 , 42, 7954-7966	5.3	48
21	Weakly bound positron-electron pairs in a strong magnetic field. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2008 , 41, 245003	1.3	5
20	Design and operation of a two-stage positron accumulator. <i>Review of Scientific Instruments</i> , 2006 , 77, 063302	1.7	35
19	Single-particle detection efficiencies of aerosol time-of-flight mass spectrometry during the North Atlantic marine boundary layer experiment. <i>Environmental Science & Technology</i> , 2006 , 40, 5029-35	10.3	54
18	The North Atlantic Marine Boundary Layer Experiment(NAMBLEX). Overview of the campaign held at Mace Head, Ireland, in summer 2002. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 2241-2272	6.8	54
17	Chemical and physical characteristics of aerosol particles at a remote coastal location, Mace Head, Ireland, during NAMBLEX. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 3289-3301	6.8	40
16	Prospects of real-time single-particle biological aerosol analysis: A comparison between laser-induced breakdown spectroscopy and aerosol time-of-flight mass spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2005 , 60, 1040-1059	3.1	39
15	Correlations in the chemical composition of rural background atmospheric aerosol in the UK determined in real time using time-of-flight mass spectrometry. <i>Journal of Environmental Monitoring</i> , 2004 , 6, 124-33		49
14	Characterization of individual airborne particles by using aerosol time-of-flight mass spectrometry at Mace Head, Ireland. <i>Journal of Geophysical Research</i> , 2004 , 109, n/a-n/a		45
13	Addendum to Single-pulse laser-induced breakdown spectroscopy of samples submerged in water using a single-fibre light delivery system. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2003 , 58, 583-584	3.1	2
12	Application of frustrated total internal reflection devices to analytical laser spectroscopy. <i>Applied Optics</i> , 2003 , 42, 6006-15	1.7	3
11	Single-pollen analysis by laser-induced breakdown spectroscopy and Raman microscopy. <i>Applied Optics</i> , 2003 , 42, 6119-32	1.7	79
10	Single-pulse laser-induced breakdown spectroscopy of samples submerged in water using a single-fibre light delivery system. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2002 , 57, 1461-1471	3.1	53
9	Sensitive and selective spectrochemical analysis of metallic samples: the combination of laser-induced breakdown spectroscopy and laser-induced fluorescence spectroscopy. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2001 , 56, 947-960	3.1	73
8	Quantitative laser-induced breakdown spectroscopy analysis of calcified tissue samples. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2001 , 56, 865-875	3.1	88
7	Laser-induced breakdown spectroscopy: a tool for real-time, in vitro and in vivo identification of carious teeth. <i>BMC Oral Health</i> , 2001 , 1, 1	3.7	68
6	Clinical application of laser-induced breakdown spectroscopy to the analysis of teeth and dental materials. <i>Photomedicine and Laser Surgery</i> , 2000 , 18, 281-9		28

- 5 Application of laser-induced breakdown spectroscopy to in situ analysis of liquid samples. *Optical Engineering*, **2000**, 39, 2248 1.1 176
- 4 An optical double resonance study of the perturbed O_2 $d^3s\sigma(1g)$ Rydberg state excited via single rotational levels of the $b(1g^+)$ valence state. *Journal of Chemical Physics*, **2000**, 113, 2182-2187^{3,9} 9
- 3 Quantitative analysis of trace metal accumulation in teeth using laser-induced breakdown spectroscopy. *Applied Physics A: Materials Science and Processing*, **1999**, 69, S179-S182 2.6 18
- 2 Laser ablation for mineral analysis in the human body: integration of LIFS with LIBS **1999**, 3570, 263 13
- 1 Analysis of liquid samples using laser-induced breakdown spectroscopy **1998**, 3504, 299