

David Fowler

List of Publications by Citations

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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.

135
papers

10,214
citations

54
h-index

100
g-index

140
ext. papers

11,399
ext. citations

6.9
avg, IF

5.49
L-index

#	Paper	IF	Citations
135	Simultaneously mitigating near-term climate change and improving human health and food security. <i>Science</i> , 2012 , 335, 183-9	33.3	875
134	The global nitrogen cycle in the twenty-first century. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013 , 368, 20130164	5.8	727
133	Atmospheric composition change [g]lobal and regional air quality. <i>Atmospheric Environment</i> , 2009 , 43, 5268-5350	5.3	592
132	Atmospheric composition change: EcosystemsAtmosphere interactions. <i>Atmospheric Environment</i> , 2009 , 43, 5193-5267	5.3	506
131	Oxidation of atmospheric methane in Northern European soils, comparison with other ecosystems, and uncertainties in the global terrestrial sink. <i>Global Change Biology</i> , 2000 , 6, 791-803	11.4	329
130	Quantifying the effect of urban tree planting on concentrations and depositions of PM10 in two UK conurbations. <i>Atmospheric Environment</i> , 2007 , 41, 8455-8467	5.3	265
129	Ammonia emissions from non-agricultural sources in the UK. <i>Atmospheric Environment</i> , 2000 , 34, 855-869	5.3	255
128	Nitrogen deposition threatens species richness of grasslands across Europe. <i>Environmental Pollution</i> , 2010 , 158, 2940-5	9.3	254
127	Towards a climate-dependent paradigm of ammonia emission and deposition. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013 , 368, 20130166	5.8	244
126	Atmospheric nitrogen compounds II: emissions, transport, transformation, deposition and assessment. <i>Atmospheric Environment</i> , 2001 , 35, 1903-1911	5.3	234
125	The Global Exposure of Forests to Air Pollutants. <i>Water, Air, and Soil Pollution</i> , 1999 , 116, 5-32	2.6	212
124	Atmospheric composition change: ClimateChemistry interactions. <i>Atmospheric Environment</i> , 2009 , 43, 5138-5192	5.3	206
123	Chemistry and the Linkages between Air Quality and Climate Change. <i>Chemical Reviews</i> , 2015 , 115, 3856-3871	11.4	205
122	Dry deposition of reactive nitrogen to European ecosystems: a comparison of inferential models across the NitroEurope network. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 2703-2728	6.8	205
121	Development of resistance models to describe measurements of bi-directional ammonia surfaceAtmosphere exchange. <i>Atmospheric Environment</i> , 1998 , 32, 473-480	5.3	171
120	Nitric oxide emissions from agricultural soils in temperate and tropical climates: sources, controls and mitigation options. <i>Nutrient Cycling in Agroecosystems</i> , 1997 , 48, 139-153	3.3	152
119	Methane emission rates from a northern wetland; response to temperature, water table and transport. <i>Atmospheric Environment</i> , 1998 , 32, 3219-3227	5.3	148

118	Micrometeorological measurements of the urban heat budget and CO ₂ emissions on a city scale. <i>Environmental Science & Technology</i> , 2002 , 36, 3139-46	10.3	148
117	The influence of altitude on rainfall composition at great dun fell. <i>Atmospheric Environment</i> , 1988 , 22, 1355-1362		137
116	Measuring atmospheric composition change. <i>Atmospheric Environment</i> , 2009 , 43, 5351-5414	5.3	130
115	Assessment of the magnitude of ammonia emissions in the United Kingdom. <i>Atmospheric Environment</i> , 1995 , 29, 1393-1411	5.3	128
114	Modelling surface ozone during the 2003 heat-wave in the UK. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 7963-7978	6.8	123
113	Overview: oxidant and particle photochemical processes above a south-east Asian tropical rainforest (the OP3 project): introduction, rationale, location characteristics and tools. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 169-199	6.8	120
112	Measurements of Ozone Deposition to Vegetation Quantifying the Flux, the Stomatal and Non-Stomatal Components. <i>Water, Air, and Soil Pollution</i> , 2001 , 130, 63-74	2.6	108
111	Dry deposition of ammonia gas drives species change faster than wet deposition of ammonium ions: evidence from a long-term field manipulation. <i>Global Change Biology</i> , 2011 , 17, 3589-3607	11.4	94
110	Dry deposition of so ₂ on agricultural crops. <i>Atmospheric Environment</i> , 1978 , 12, 369-373		93
109	The atmospheric budget of oxidized nitrogen and its role in ozone formation and deposition. <i>New Phytologist</i> , 1998 , 139, 11-23	9.8	91
108	Direct measurements and parameterisation of aerosol flux, concentration and emission velocity above a city. <i>Atmospheric Environment</i> , 2002 , 36, 791-800	5.3	91
107	Some key environmental variables controlling nitrous oxide emissions from agricultural and semi-natural soils in Scotland. <i>Atmospheric Environment</i> , 1998 , 32, 3311-3320	5.3	89
106	Methane emissions from soils: synthesis and analysis of a large UK data set. <i>Global Change Biology</i> , 2012 , 18, 1657-1669	11.4	88
105	Diagnostic indicators of elevated nitrogen deposition. <i>Environmental Pollution</i> , 2006 , 144, 941-50	9.3	88
104	The effect of nitrogen deposition and seasonal variability on methane oxidation and nitrous oxide emission rates in an upland spruce plantation and moorland. <i>Atmospheric Environment</i> , 1997 , 31, 3693-3706	5.3	86
103	Selective environmental stress from sulphur emitted by continental flood basalt eruptions. <i>Nature Geoscience</i> , 2016 , 9, 77-82	18.3	82
102	Quantifying the effects of water table and soil temperature on the emission of methane from peat wetland at the field scale. <i>Atmospheric Environment</i> , 1998 , 32, 3275-3282	5.3	81
101	Evaluation of laser absorption spectroscopic techniques for eddy covariance flux measurements of ammonia. <i>Environmental Science & Technology</i> , 2008 , 42, 2041-6	10.3	80

100	Quantifying the spatial distribution of surface ozone concentration in the UK. <i>Atmospheric Environment</i> , 2002 , 36, 1013-1024	5.3	79
99	Long Term Trends in Sulphur and Nitrogen Deposition in Europe and the Cause of Non-linearities. <i>Water, Air and Soil Pollution</i> , 2007 , 7, 41-47		78
98	Direct ecosystem fluxes of volatile organic compounds from oil palms in South-East Asia. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 8995-9017	6.8	73
97	Hydrochloric acid: an overlooked driver of environmental change. <i>Environmental Science & Technology</i> , 2011 , 45, 1887-94	10.3	71
96	Ecological effects of sulfur dioxide, fluorides, and minor air pollutants: recent trends and research needs. <i>Environment International</i> , 2003 , 29, 201-11	12.9	71
95	The global nitrogen cycle in the twenty-first century: introduction. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013 , 368, 20130165	5.8	67
94	Soil environmental variables affecting the flux of methane from a range of forest, moorland and agricultural soils. <i>Biogeochemistry</i> , 1996 , 34, 113	3.8	64
93	A modified profile method for determining the vertical fluxes of NO, NO ₂ , ozone, and HNO ₃ in the atmospheric surface layer. <i>Journal of Atmospheric Chemistry</i> , 1991 , 13, 265-288	3.2	64
92	Governing processes for reactive nitrogen compounds in the European atmosphere. <i>Biogeosciences</i> , 2012 , 9, 4921-4954	4.6	62
91	Micrometeorological measurements of particle deposition velocities to moorland vegetation. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2002 , 128, 2281-2300	6.4	62
90	Practical considerations for addressing uncertainties in monitoring bulk deposition. <i>Environmental Pollution</i> , 2005 , 134, 535-48	9.3	61
89	The influence of long term trends in pollutant emissions on deposition of sulphur and nitrogen and exceedance of critical loads in the United Kingdom. <i>Environmental Science and Policy</i> , 2009 , 12, 882-896	6.2	60
88	The great dun fell cloud experiment 1993: An overview. <i>Atmospheric Environment</i> , 1997 , 31, 2393-2405	5.3	60
87	Controls on suppression of methane flux from a peat bog subjected to simulated acid rain sulfate deposition. <i>Global Biogeochemical Cycles</i> , 2002 , 16, 4-1-4-12	5.9	60
86	Ozone impacts on vegetation in a nitrogen enriched and changing climate. <i>Environmental Pollution</i> , 2016 , 208, 898-908	9.3	59
85	The impact of nitrogen deposition on acid grasslands in the Atlantic region of Europe. <i>Environmental Pollution</i> , 2011 , 159, 2243-50	9.3	58
84	New Directions: Implications of increasing tropospheric background ozone concentrations for vegetation. <i>Atmospheric Environment</i> , 2003 , 37, 153-154	5.3	58
83	Effects of land use on surface-atmosphere exchanges of trace gases and energy in Borneo: comparing fluxes over oil palm plantations and a rainforest. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2011 , 366, 3196-209	5.8	55

82	Monitoring and modelling of biosphere/atmosphere exchange of gases and aerosols in Europe. <i>Environmental Pollution</i> , 2005 , 133, 403-13	9.3	55
81	Advances in micrometeorological methods for the measurement and interpretation of gas and particle nitrogen fluxes. <i>Plant and Soil</i> , 2001 , 228, 117-129	4.2	54
80	The contamination of rain samples by dry deposition on rain collectors. <i>Atmospheric Environment</i> , 1984 , 18, 183-189		48
79	Bulk deposition of organic and inorganic nitrogen in southwest China from 2008 to 2013. <i>Environmental Pollution</i> , 2017 , 227, 157-166	9.3	46
78	The influence of altitude on wet deposition comparison between field measurements at great dun fell and the predictions of a seeder-feeder model. <i>Atmospheric Environment</i> , 1988 , 22, 1363-1371		44
77	Changes in species composition of European acid grasslands observed along a gradient of nitrogen deposition. <i>Journal of Vegetation Science</i> , 2011 , 22, 207-215	3.1	43
76	Ammonia concentrations at a site in Southern Scotland from 2yr of continuous measurements. <i>Atmospheric Environment</i> , 1998 , 32, 325-331	5.3	43
75	Air quality and climate change: Designing new win-win policies for Europe. <i>Environmental Science and Policy</i> , 2016 , 65, 48-57	6.2	42
74	Sources of uncertainty in eddy covariance ozone flux measurements made by dry chemiluminescence fast response analysers. <i>Atmospheric Measurement Techniques</i> , 2010 , 3, 163-176	4	42
73	Measurements of ozone deposition to a potato canopy. <i>Agricultural and Forest Meteorology</i> , 2009 , 149, 655-666	5.8	42
72	Quantifying Dry NH ₃ Deposition to an Ombrotrophic Bog from an Automated NH ₃ Field Release System. <i>Water, Air and Soil Pollution</i> , 2004 , 4, 207-218		41
71	On the episodic nature of wet deposited sulphate and acidity. <i>Atmospheric Environment</i> , 1984 , 18, 1859-1866		41
70	Foliar Nitrogen as an Indicator of Nitrogen Deposition and Critical Loads Exceedance on a European Scale. <i>Water, Air, and Soil Pollution</i> , 2001 , 130, 1037-1042	2.6	40
69	Differential responses of UK upland plants to nitrogen deposition. <i>New Phytologist</i> , 1999 , 141, 277-289	9.8	37
68	Measurement of nitrous oxide emission from agricultural land using micrometeorological methods. <i>Atmospheric Environment</i> , 1996 , 30, 1563-1571	5.3	37
67	Comparison of gas exchange and bioassay determinations of the ammonia compensation point in <i>Luzula sylvatica</i> (Huds.) Gaud. <i>Plant Physiology</i> , 2001 , 125, 476-87	6.6	36
66	Surface/atmosphere exchange and chemical interaction of gases and aerosols over oilseed rape. <i>Agricultural and Forest Meteorology</i> , 2000 , 105, 427-445	5.8	33
65	Methane emission by termites and oxidation by soils, across a forest disturbance gradient in the Mbalmayo Forest Reserve, Cameroon. <i>Global Change Biology</i> , 1998 , 4, 409-418	11.4	32

64	Nitrogen processes in the atmosphere 177-208		31
63	Estimation of spatial apportionment of greenhouse gas emissions for the UK using boundary layer measurements and inverse modelling technique. <i>Atmospheric Environment</i> , 2011 , 45, 1042-1049	5.3	31
62	A chronology of global air quality. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020 , 378, 20190314	3	31
61	Eddy-covariance measurements of nitrous oxide fluxes above a city. <i>Agricultural and Forest Meteorology</i> , 2010 , 150, 786-793	5.8	30
60	Sulfate deposition and temperature controls on methane emission and sulfur forms in peat. <i>Biogeochemistry</i> , 2004 , 71, 141-162	3.8	30
59	Emissions of NO and N ₂ O from soils. <i>Environmental Monitoring and Assessment</i> , 1994 , 31, 153-8	3.1	30
58	Long term measurements of the land-atmosphere exchange of ammonia over moorland. <i>Atmospheric Environment</i> , 1998 , 32, 453-459	5.3	28
57	Trace gas flux measurements at the landscape scale using boundary-layer budgets. <i>Philosophical Transactions of the Royal Society: Physical and Engineering Sciences</i> , 1995 , 351, 357-369		28
56	Chemical composition of rainfall and wet deposition over northern Britain. <i>Atmospheric Environment</i> , 1984 , 18, 1921-1932		28
55	Deposition monitoring networks: what monitoring is required to give reasonable estimates of ammonia/ammonium?. <i>Environmental Pollution</i> , 2005 , 135, 419-31	9.3	27
54	Inertia in an ombrotrophic bog ecosystem in response to 9 years realistic perturbation by wet deposition of nitrogen, separated by form. <i>Global Change Biology</i> , 2014 , 20, 566-80	11.4	26
53	Effects of air filtration at small SO ₂ and NO ₂ concentrations on the yield of barley. <i>Environmental Pollution</i> , 1988 , 53, 135-49	9.3	26
52	Methane emissions on large scales. <i>Atmospheric Environment</i> , 1998 , 32, 3283-3291	5.3	24
51	The reduced nitrogen budget of an orographic cloud. <i>Atmospheric Environment</i> , 1997 , 31, 2599-2614	5.3	23
50	. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1994 , 46, 353-372	3.3	23
49	Linking Ammonia Emission Trends to Measured Concentrations and Deposition of Reduced Nitrogen at Different Scales 2009 , 123-180		23
48	Measurements of methane fluxes on the landscape scale from a wetland area in North Scotland. <i>Atmospheric Environment</i> , 1994 , 28, 2421-2430	5.3	22
47	Potential and limitation of air pollution mitigation by vegetation and uncertainties of deposition-based evaluations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020 , 378, 20190320	3	22

46	Comparison of ozone fluxes over grassland by gradient and eddy covariance technique. <i>Atmospheric Science Letters</i> , 2009 , 10, 164-169	2.4	21
45	The effect of termite biomass and anthropogenic disturbance on the CH ₄ budgets of tropical forests in Cameroon and Borneo. <i>Global Change Biology</i> , 1999 , 5, 869-879	11.4	20
44	Quantifying missing annual emission sources of heavy metals in the United Kingdom with an atmospheric transport model. <i>Science of the Total Environment</i> , 2014 , 479-480, 171-80	10.2	19
43	Estimate of annual NH ₃ dry deposition to a fumigated ombrotrophic bog using concentration-dependent deposition velocities. <i>Atmospheric Environment</i> , 2008 , 42, 6637-6646	5.3	19
42	Concentration-dependent NH ₃ deposition processes for moorland plant species with and without stomata. <i>Atmospheric Environment</i> , 2007 , 41, 8980-8994	5.3	17
41	Vertical distribution and fluxes of ammonia at Great Dun Fell. <i>Atmospheric Environment</i> , 1997 , 31, 2615-2624	5.3	16
40	Observation on great dun fell of the pathways by which oxides of nitrogen are converted to nitrate. <i>Atmospheric Environment</i> , 1994 , 28, 397-408	5.3	16
39	Uncertainty in Estimation of Wet Deposition of Sulphur. <i>Water, Air and Soil Pollution</i> , 2001 , 1, 341-353		15
38	Comparison of the Effects of Wet N Deposition (NH ₄ Cl) and Dry N Deposition (NH ₃) on UK Moorland Species. <i>Water, Air, and Soil Pollution</i> , 2001 , 130, 1043-1048	2.6	15
37	Modelling land atmosphere exchange of gaseous oxides of nitrogen in Europe. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1994 , 46, 353-372	3.3	14
36	Mass budget studies of photochemical ozone production over the U.K.. <i>Atmospheric Environment</i> , 1989 , 23, 1349-1360		14
35	The impact of air pollution on terrestrial managed and natural vegetation. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020 , 378, 20190317	3	13
34	Carbon-Nitrogen interactions in European forests and semi-natural vegetation [Part 1: Fluxes and budgets of carbon, nitrogen and greenhouse gases from ecosystem monitoring and modelling. <i>Biogeosciences</i> , 2020 , 17, 1583-1620	4.6	12
33	A model of annual orographic precipitation and acid deposition and its application to Snowdonia. <i>Atmospheric Environment</i> , 2006 , 40, 3316-3326	5.3	12
32	Influences on long-term trends in ion concentration and deposition at Holme Moss. <i>Atmospheric Environment</i> , 2003 , 37, 1927-1940	5.3	12
31	Alkaline air: changing perspectives on nitrogen and air pollution in an ammonia-rich world. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020 , 378, 20190313	3	12
30	Determination of gaseous and particulate selenium over a rural grassland in the U.K.. <i>Atmospheric Environment</i> , 1994 , 28, 3655-3663	5.3	11
29	The importance of orography in spatial patterns of rainfall acidity in Scotland. <i>Atmospheric Environment Part A General Topics</i> , 1991 , 25, 1517-1522		10

28	Atmospheric Particles and their Interactions with Natural Surfaces 1997 , 45-92		10
27	The future of South East Asian rainforests in a changing landscape and climate. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2011 , 366, 3165-7	5.8	9
26	Monitoring and modelling trace-gas changes following the 2001 outbreak of Foot and Mouth Disease to reduce the uncertainties in agricultural emissions abatement. <i>Environmental Science and Policy</i> , 2006 , 9, 407-422	6.2	9
25	The Global Exposure of Forests to Air Pollutants 1999 , 5-32		9
24	Ambient concentrations and deposition rates of selected reactive nitrogen species and their contribution to PM aerosols at three locations with contrasting land use in southwest China. <i>Environmental Pollution</i> , 2018 , 233, 1164-1176	9.3	8
23	The GaNE Programme in a Global Perspective. <i>Water, Air and Soil Pollution</i> , 2004 , 4, 3-8		8
22	Modelling horizontal and vertical concentration profiles of ozone and oxides of nitrogen within high-latitude urban areas. <i>Atmospheric Environment</i> , 2001 , 35, 2009-2022	5.3	8
21	The potential of NH ₃ , N ₂ O and CH ₄ measurements following the 2001 outbreak of Foot and Mouth Disease in Great Britain to reduce the uncertainties in agricultural emissions abatement. <i>Environmental Science and Policy</i> , 2004 , 7, 177-194	6.2	7
20	Long-Term Cumulative Exposure Exacerbates the Effects of Atmospheric Ammonia on an Ombrotrophic Bog: Implications for Critical Levels 2009 , 49-58		6
19	Corrigendum to "Overview: oxidant and particle photochemical processes above a south-east Asian tropical rainforest (the OP3 project): introduction, rationale, location characteristics and tools" published in <i>Atmos. Chem. Phys.</i> , 10, 1691-1699, 2010. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 563-563	6.8	5
18	Uncertainty in Estimation of Wet Deposition of Sulphur 2001 , 341-354		4
17	Committee on air pollution effects research: 40 years of UK air pollution. <i>Environmental Pollution</i> , 2016 , 208, 876-8	9.3	3
16	Carbon monoxide spatial gradients over source regions as observed by SCIAMACHY: A case study for the United Kingdom. <i>Advances in Space Research</i> , 2009 , 43, 923-929	2.4	3
15	Conclusion: applying South East Asia Rainforest Research Programme science to land-use management policy and practice in a changing landscape and climate. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2011 , 366, 3354-8	5.8	2
14	Climate change: seeking balance in media reports. <i>Environmental Research Letters</i> , 2008 , 3, 021001	6.2	2
13	Forests and the Atmosphere 229-281		2
12	Biodiversity of Acid Grasslands in the Atlantic Regions of Europe: The Impact of Nitrogen Deposition 2014 , 243-250		2
11	The Application of Transects to Assess the Effects of Ammonia on Woodland Groundflora 2009 , 59-69		2

10	Meteorological measurements at Auchencorth Moss from 1995 to 2016. <i>Geoscience Data Journal</i> , 2019 , 6, 16-29	2.5	1
9	Sulfate deposition and temperature controls on methane emission and sulfur forms in peat. <i>Biogeochemistry</i> , 2005 , 71, 141-162	3.8	1
8	Potential for the Further Development and Application of Critical Levels to Assess the Environmental Impacts of Ammonia 2009 , 41-48		1
7	Global Nitrogen and Phosphorus Pollution 2020 , 421-431		1
6	Modelling the Concentration and Deposition of Heavy Metals in the UK. <i>Springer Proceedings in Complexity</i> , 2014 , 223-227	0.3	1
5	Global Air Quality, past present and future: an introduction. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020 , 378, 20190323	3	1
4	Nonlinearities in source receptor relationships for sulfur and nitrogen compounds. <i>Ambio</i> , 2005 , 34, 41-66.5		1
3	The GaNE programme in a global perspective. <i>Water, Air and Soil Pollution</i> , 2005 , 4, 3-8		
2	Comparison of the Effects of Wet N Deposition (NH ₄ Cl) and Dry N Deposition (NH ₃) on UK Moorland Species 2001 , 1043-1048		
1	EUROTRAC: Applications to Photo-oxidants and the future project 1997 , 1-7		