

David Simpson

List of Publications by Year in descending order

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Version: 2024-02-01

94
papers

10,209
citations

46918

47
h-index

49773

87
g-index

118
all docs

118
docs citations

118
times ranked

9713
citing authors

#	ARTICLE	IF	CITATIONS
1	Deposition of sulphur and nitrogen in Europe 1900–2050. Model calculations and comparison to historical observations. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 69, 1328945.	0.8	147
2	High-resolution biogenic global emission inventory for the time period 2000–2019 for air quality modelling. <i>Earth System Science Data</i> , 2022, 14, 251-270.	3.7	32
3	Emissions of Carbonaceous Particulate Matter and Ultrafine Particles from Vehicles—A Scientific Review in a Cross-Cutting Context of Air Pollution and Climate Change. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 3623.	1.3	15
4	Trends, composition, and sources of carbonaceous aerosol at the Birkenes Observatory, northern Europe, 2001–2018. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 7149-7170.	1.9	12
5	Good Agreement Between Modeled and Measured Sulfur and Nitrogen Deposition in Europe, in Spite of Marked Differences in Some Sites. <i>Frontiers in Environmental Science</i> , 2021, 9, .	1.5	6
6	Nitrogen deposition is the most important environmental driver of growth of pure, even-aged and managed European forests. <i>Forest Ecology and Management</i> , 2020, 458, 117762.	1.4	102
7	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.	1.3	21
8	GenChem v1.0 – a chemical pre-processing and testing system for atmospheric modelling. <i>Geoscientific Model Development</i> , 2020, 13, 6447-6465.	1.3	13
9	Secondary organic aerosol reduced by mixture of atmospheric vapours. <i>Nature</i> , 2019, 565, 587-593.	13.7	222
10	The CRI v2.2 reduced degradation scheme for isoprene. <i>Atmospheric Environment</i> , 2019, 212, 172-182.	1.9	29
11	The EMEP Intensive Measurement Period campaign, 2008–2009: characterizing carbonaceous aerosol at nine rural sites in Europe. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 4211-4233.	1.9	20
12	Impacts of tropospheric ozone and climate change on Mexico wheat production. <i>Climatic Change</i> , 2019, 155, 157-174.	1.7	14
13	Ozone impacts of gas–aerosol uptake in global chemistry transport models. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 3147-3171.	1.9	36
14	Ozone pollution will compromise efforts to increase global wheat production. <i>Global Change Biology</i> , 2018, 24, 3560-3574.	4.2	163
15	Impact of regional climate change and future emission scenarios on surface O ₃ and PM _{2.5} over India. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 103-127.	1.9	34
16	Composition and sources of carbonaceous aerosols in Northern Europe during winter. <i>Atmospheric Environment</i> , 2018, 173, 127-141.	1.9	52
17	Large but decreasing effect of ozone on the European carbon sink. <i>Biogeosciences</i> , 2018, 15, 4245-4269.	1.3	44
18	Spatial variation of modelled total, dry and wet nitrogen deposition to forests at global scale. <i>Environmental Pollution</i> , 2018, 243, 1287-1301.	3.7	83

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19	Chlorine oxidation of VOCs at a semi-rural site in Beijing: significant chlorine liberation from ClNO ₂ and subsequent gas- and particle-phase Cl-VOC production. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 13013-13030.	1.9	54
20	Closing the global ozone yield gap: Quantification and cobenefits for multistress tolerance. <i>Global Change Biology</i> , 2018, 24, 4869-4893.	4.2	163
21	Tropospheric Ozone Assessment Report: Present-day ozone distribution and trends relevant to human health. <i>Elementa</i> , 2018, 6, .	1.1	167
22	Tropospheric Ozone Assessment Report: Present-day tropospheric ozone distribution and trends relevant to vegetation. <i>Elementa</i> , 2018, 6, .	1.1	212
23	Impact of excess NO _x emissions from diesel cars on air quality, public health and eutrophication in Europe. <i>Environmental Research Letters</i> , 2017, 12, 094017.	2.2	120
24	Modelling long-term impacts of changes in climate, nitrogen deposition and ozone exposure on carbon sequestration of European forest ecosystems. <i>Science of the Total Environment</i> , 2017, 605-606, 1097-1116.	3.9	40
25	Development and evaluation of an ozone deposition scheme for coupling to a terrestrial biosphere model. <i>Biogeosciences</i> , 2017, 14, 45-71.	1.3	18
26	Improving the spatial resolution of air-quality modelling at a European scale – development and evaluation of the Air Quality Re-gridding Model (AQR v1.1). <i>Geoscientific Model Development</i> , 2016, 9, 4475-4489.	1.3	13
27	Photochemical smog in China: scientific challenges and implications for air-quality policies. <i>National Science Review</i> , 2016, 3, 401-403.	4.6	58
28	Comment on Anav <i>et al.</i> (2016) Comparing concentration-based (AOT40) and stomatal uptake (PODY) metrics for ozone risk assessment to European forests. <i>Global Change Biology</i> , 22(4), 1608-1627, doi:10.1111/gcb.13138. <i>Global Change Biology</i> , 2016, 22, 3257-3258.	4.2	1
29	Effects of global change during the 21st century on the nitrogen cycle. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 13849-13893.	1.9	168
30	Particulate emissions from residential wood combustion in Europe – revised estimates and an evaluation. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 6503-6519.	1.9	193
31	Impacts of European livestock production: nitrogen, sulphur, phosphorus and greenhouse gas emissions, land-use, water eutrophication and biodiversity. <i>Environmental Research Letters</i> , 2015, 10, 115004.	2.2	332
32	Performance of European chemistry transport models as function of horizontal resolution. <i>Atmospheric Environment</i> , 2015, 112, 90-105.	1.9	85
33	Have ozone effects on carbon sequestration been overestimated? A new biomass response function for wheat. <i>Biogeosciences</i> , 2014, 11, 4521-4528.	1.3	17
34	Ozone – the persistent menace: interactions with the N cycle and climate change. <i>Current Opinion in Environmental Sustainability</i> , 2014, 9-10, 9-19.	3.1	100
35	Impacts of climate and emission changes on nitrogen deposition in Europe: a multi-model study. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 6995-7017.	1.9	103
36	Uncertainties in assessing the environmental impact of amine emissions from a CO ₂ capture plant. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 8533-8557.	1.9	23

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37	Biotic stress: a significant contributor to organic aerosol in Europe?. Atmospheric Chemistry and Physics, 2014, 14, 13643-13660.	1.9	40
38	The EMEP MSC-W Modelling Programme: Its Relationship to Policy Support, Current Challenges and Future Perspectives. NATO Science for Peace and Security Series C: Environmental Security, 2014, , 265-271.	0.1	3
39	Air Pollution Risks to Northern European Forests in a Changing Climate. Developments in Environmental Science, 2013, , 77-99.	0.5	16
40	Towards a climate-dependent paradigm of ammonia emission and deposition. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20130166.	1.8	328
41	Light-absorbing carbon in Europe – measurement and modelling, with a focus on residential wood combustion emissions. Atmospheric Chemistry and Physics, 2013, 13, 8719-8738.	1.9	51
42	Advances in understanding, models and parameterizations of biosphere-atmosphere ammonia exchange. Biogeosciences, 2013, 10, 5183-5225.	1.3	116
43	DO<sub>3</sub>SE modelling of soil moisture to determine ozone flux to forest trees. Atmospheric Chemistry and Physics, 2012, 12, 5537-5562.	1.9	83
44	The EMEP MSC-W chemical transport model – technical description. Atmospheric Chemistry and Physics, 2012, 12, 7825-7865.	1.9	622
45	A multi-model study of impacts of climate change on surface ozone in Europe. Atmospheric Chemistry and Physics, 2012, 12, 10423-10440.	1.9	113
46	Future air quality in Europe: a multi-model assessment of projected exposure to ozone. Atmospheric Chemistry and Physics, 2012, 12, 10613-10630.	1.9	81
47	Lessons learnt from the first EMEP intensive measurement periods. Atmospheric Chemistry and Physics, 2012, 12, 8073-8094.	1.9	58
48	Modelling of organic aerosols over Europe (2002–2007) using a volatility basis set (VBS) framework: application of different assumptions regarding the formation of secondary organic aerosol. Atmospheric Chemistry and Physics, 2012, 12, 8499-8527.	1.9	193
49	Impact of forest fires, biogenic emissions and high temperatures on the elevated Eastern Mediterranean ozone levels during the hot summer of 2007. Atmospheric Chemistry and Physics, 2012, 12, 8727-8750.	1.9	52
50	Governing processes for reactive nitrogen compounds in the European atmosphere. Biogeosciences, 2012, 9, 4921-4954.	1.3	77
51	Towards the use of dynamic growing seasons in a chemical transport model. Biogeosciences, 2012, 9, 5161-5179.	1.3	6
52	Atmospheric transport and deposition of reactive nitrogen in Europe. , 2011, , 298-316.		21
53	Nitrogen as a threat to the European greenhouse balance. , 2011, , 434-462.		58
54	Nitrogen processes in the atmosphere. , 2011, , 177-208.		35

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55	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.	1.9	278
56	Source apportionment of carbonaceous aerosol in southern Sweden. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 11387-11400.	1.9	77
57	Source apportionment of the summer time carbonaceous aerosol at Nordic rural background sites. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 13339-13357.	1.9	99
58	Carbon monoxide (CO) and ethane (C ₂ H ₆) trends from ground-based solar FTIR measurements at six European stations, comparison and sensitivity analysis with the EMEP model. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 9253-9269.	1.9	53
59	Source apportionment of the carbonaceous aerosol in Norway – quantitative estimates based on ¹⁴ C, thermal-optical and organic tracer analysis. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 9375-9394.	1.9	75
60	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.	1.9	254
61	Evidence of widespread effects of ozone on crops and (semi-)natural vegetation in Europe (1990-2006) in relation to AOT40- and flux-based risk maps. <i>Global Change Biology</i> , 2011, 17, 592-613.	4.2	239
62	New stomatal flux-based critical levels for ozone effects on vegetation. <i>Atmospheric Environment</i> , 2011, 45, 5064-5068.	1.9	215
63	Towards a transnational system of supersites for forest monitoring and research in Europe - an overview on present state and future recommendations. <i>IForest</i> , 2011, 4, 167-171.	0.5	23
64	Availability, accessibility, quality and comparability of monitoring data for European forests for use in air pollution and climate change science. <i>IForest</i> , 2011, 4, 162-166.	0.5	28
65	Modelling surface ozone during the 2003 heat-wave in the UK. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 7963-7978.	1.9	159
66	Atmospheric composition change: Ecosystems – Atmosphere interactions. <i>Atmospheric Environment</i> , 2009, 43, 5193-5267.	1.9	609
67	Measuring atmospheric composition change. <i>Atmospheric Environment</i> , 2009, 43, 5351-5414.	1.9	160
68	Atmospheric composition change – global and regional air quality. <i>Atmospheric Environment</i> , 2009, 43, 5268-5350.	1.9	714
69	Modelling ozone fluxes to forests for risk assessment: status and prospects. <i>Annals of Forest Science</i> , 2009, 66, 401-401.	0.8	54
70	Ozone Exposure and Impacts on Vegetation in the Nordic and Baltic Countries. <i>Ambio</i> , 2009, 38, 402-405.	2.8	13
71	Humidity parameters from temperature: test of a simple methodology for European conditions. <i>International Journal of Climatology</i> , 2008, 28, 961-972.	1.5	5
72	Uncertainties in the relationship between atmospheric nitrogen deposition and forest carbon sequestration. <i>Global Change Biology</i> , 2008, 14, 2057-2063.	4.2	166

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73	An aerodynamic correction for the European ozone risk assessment methodology. Atmospheric Environment, 2008, 42, 8371-8381.	1.9	7
74	Comparison of modelled and measured ozone concentrations and meteorology for a site in south-west Sweden: Implications for ozone uptake calculations. Environmental Pollution, 2008, 155, 99-111.	3.7	22
75	Modeling historical long-term trends of sulfate, ammonium, and elemental carbon over Europe: A comparison with ice core records in the Alps. Journal of Geophysical Research, 2007, 112, .	3.3	67
76	Source apportionment of PM2.5 organic aerosol over Europe: Primary/secondary, natural/anthropogenic, and fossil/biogenic origin. Journal of Geophysical Research, 2007, 112, .	3.3	391
77	Seasonal trends and possible sources of brown carbon based on 2-year aerosol measurements at six sites in Europe. Journal of Geophysical Research, 2007, 112, .	3.3	169
78	Future scenarios of N2O and NO emissions from European forest soils. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	50
79	Modelling of Ozone and Secondary Organic Aerosol across Europe: Results from the EMEP models. , 2002, , 51-56.		0
80	Secondary organic aerosol formation in northern Europe: A model study. Journal of Geophysical Research, 2001, 106, 7357-7374.	3.3	103
81	Comparisons of Measured and Modelled Ozone Deposition to Forests in Northern Europe. Water, Air and Soil Pollution, 2001, 1, 263-274.	0.8	31
82	Long-term measurements and model calculations of formaldehyde at rural European monitoring sites. Atmospheric Environment, 2001, 35, 195-207.	1.9	48
83	Characteristics of an Ozone Deposition Module. , 2001, , 253-262.		0
84	Regional Modelling of Tropospheric Ozone. , 2000, , 83-97.		2
85	Comparison of the chemical schemes of the EMEP MSC-W and IVL photochemical trajectory models. Atmospheric Environment, 1999, 33, 1111-1129.	1.9	71
86	Inventorying emissions from nature in Europe. Journal of Geophysical Research, 1999, 104, 8113-8152.	3.3	452
87	On the boundary between man-made and natural emissions: Problems in defining European ecosystems. Journal of Geophysical Research, 1999, 104, 8153-8159.	3.3	14
88	Title is missing!. Journal of Atmospheric Chemistry, 1998, 30, 241-271.	1.4	9
89	European VOC Emission Estimates Evaluated by Measurements and Model Calculations. Journal of Atmospheric Chemistry, 1997, 28, 173-193.	1.4	8
90	Hydrocarbon reactivity and ozone formation in Europe. Journal of Atmospheric Chemistry, 1995, 20, 163-177.	1.4	40

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91	Biogenic emissions in Europe: 2. Implications for ozone control strategies. Journal of Geophysical Research, 1995, 100, 22891.	3.3	129
92	Biogenic emissions in Europe: 1. Estimates and uncertainties. Journal of Geophysical Research, 1995, 100, 22875.	3.3	329
93	Photochemical model calculations over Europe for two extended summer periods: 1985 and 1989. Model results and comparison with observations. Atmospheric Environment Part A General Topics, 1993, 27, 921-943.	1.3	106
94	Integrating nitrogen fluxes at the European scale. , 0, , 345-376.		65