Sophie Szopa

List of Publications by Year
in descending order

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72	13,130	53751 45	82499 72
papers	citations	h-index	g-index

97	97	97	14617
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Three decades of global methane sources and sinks. Nature Geoscience, 2013, 6, 813-823.	5.4	1,649
2	Climate change projections using the IPSL-CM5 Earth System Model: from CMIP3 to CMIP5. Climate Dynamics, 2013, 40, 2123-2165.	1.7	1,425
3	The CNRM-CM5.1 global climate model: description and basic evaluation. Climate Dynamics, 2013, 40, 2091-2121.	1.7	1,008
4	Nitrogen and sulfur deposition on regional and global scales: A multimodel evaluation. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	1.9	846
5	Multimodel ensemble simulations of present-day and near-future tropospheric ozone. Journal of Geophysical Research, 2006, 111, .	3.3	743
6	Pre-industrial to end 21st century projections of tropospheric ozone from the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP). Atmospheric Chemistry and Physics, 2013, 13, 2063-2090.	1.9	570
7	Multimodel estimates of intercontinental sourceâ€receptor relationships for ozone pollution. Journal of Geophysical Research, 2009, 114, .	3.3	430
8	Global air quality and climate. Chemical Society Reviews, 2012, 41, 6663.	18.7	428
9	Radiative forcing in the ACCMIP historical and future climate simulations. Atmospheric Chemistry and Physics, 2013, 13, 2939-2974.	1.9	395
10	The Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP): overview and description of models, simulations and climate diagnostics. Geoscientific Model Development, 2013, 6, 179-206.	1.3	388
11	Global premature mortality due to anthropogenic outdoor air pollution and the contribution of past climate change. Environmental Research Letters, 2013, 8, 034005.	2.2	381
12	Tropospheric ozone changes, radiative forcing and attribution to emissions in the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP). Atmospheric Chemistry and Physics, 2013, 13, 3063-3085.	1.9	361
13	The Global Atmospheric Environment for the Next Generation. Environmental Science & Technology, 2006, 40, 3586-3594.	4.6	338
14	Preindustrial to present-day changes in tropospheric hydroxyl radical and methane lifetime from the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP). Atmospheric Chemistry and Physics, 2013, 13, 5277-5298.	1.9	288
15	Analysis of present day and future OH and methane lifetime in the ACCMIP simulations. Atmospheric Chemistry and Physics, 2013, 13, 2563-2587.	1.9	257
16	Multimodel simulations of carbon monoxide: Comparison with observations and projected near-future changes. Journal of Geophysical Research, 2006, 111, .	3.3	254
17	Source attribution of the changes in atmospheric methane for 2006â€“2008. Atmospheric Chemistry and Physics, 2011, 11, 3689-3700.	1.9	252
18	Longâ€term ozone changes and associated climate impacts in CMIP5 simulations. Journal of Geophysical Research D: Atmospheres, 2013, 118, 5029-5060.	1.2	243

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19	Aerosol and ozone changes as forcing for climate evolution between 1850 and 2100. Climate Dynamics, 2013, 40, 2223-2250.	1.7	157
20	Modelling future changes in surface ozone: a parameterized approach. Atmospheric Chemistry and Physics, 2012, 12, 2037-2054.	1.9	155
21	A 4-D climatology (1979â€“2009) of the monthly tropospheric aerosol optical depth distribution over the Mediterranean region from a comparative evaluation and blending of remote sensing and model products. Atmospheric Measurement Techniques, 2013, 6, 1287-1314.	1.2	131
22	Have primary emission reduction measures reduced ozone across Europe? An analysis of European rural background ozone trends 1996â€“2005. Atmospheric Chemistry and Physics, 2012, 12, 437-454.	1.9	128
23	Intercontinental Impacts of Ozone Pollution on Human Mortality. Environmental Science & Technology, 2009, 43, 6482-6487.	4.6	126
24	Increasing Isoprene Epoxydiol-to-Inorganic Sulfate Aerosol Ratio Results in Extensive Conversion of Inorganic Sulfate to Organosulfur Forms: Implications for Aerosol Physicochemical Properties. Environmental Science & Technology, 2019, 53, 8682-8694.	4.6	111
25	The effect of future ambient air pollution on human premature mortality to 2100 using output from the ACCMIP model ensemble. Atmospheric Chemistry and Physics, 2016, 16, 9847-9862.	1.9	101
26	The influence of ozone precursor emissions from four world regions on tropospheric composition and radiative climate forcing. Journal of Geophysical Research, 2012, 117, .	3.3	97
27	Implementation of the CMIP6 Forcing Data in the IPSLâ€CM6Aâ€LR Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001940.	1.3	95
28	The formaldehyde budget as seen by a global-scale multi-constraint and multi-species inversion system. Atmospheric Chemistry and Physics, 2012, 12, 6699-6721.	1.9	93
29	Future tropospheric ozone simulated with a climate-chemistry-biosphere model. Geophysical Research Letters, 2005, 32, .	1.5	90
30	Ten years of CO emissions as seen from Measurements of Pollution in the Troposphere (MOPITT). Journal of Geophysical Research, 2011, 116, .	3.3	87
31	Radiative forcing due to changes in ozone and methane caused by the transport sector. Atmospheric Environment, 2011, 45, 387-394.	1.9	87
32	European atmosphere in 2050, a regional air quality and climate perspective under CMIP5 scenarios. Atmospheric Chemistry and Physics, 2013, 13, 7451-7471.	1.9	87
33	A multi-model study of the hemispheric transport and deposition of oxidised nitrogen. Geophysical Research Letters, 2008, 35, .	1.5	76
34	Human mortality effects of future concentrations of tropospheric ozone. Comptes Rendus - Geoscience, 2007, 339, 775-783.	0.4	73
35	A multi-model analysis of vertical ozone profiles. Atmospheric Chemistry and Physics, 2010, 10, 5759-5783.	1.9	70
36	Impact of transport model errors on the global and regional methane emissions estimated by inverse modelling. Atmospheric Chemistry and Physics, 2013, 13, 9917-9937.	1.9	68

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37	Future global tropospheric ozone changes and impact on European air quality. Geophysical Research Letters, 2006, 33, .	1.5	64
38	Are decadal anthropogenic emission reductions in Europe consistent with surface ozone observations?. Geophysical Research Letters, 2006, 33, .	1.5	61
39	Evaluation of ACCMIP outgoing longwave radiation from tropospheric ozone using TES satellite observations. Atmospheric Chemistry and Physics, 2013, 13, 4057-4072.	1.9	61
40	Impact of large scale circulation on European summer surface ozone and consequences for modelling forecast. Atmospheric Environment, 2009, 43, 1189-1195.	1.9	60
41	Variability of fire carbon emissions in equatorial Asia and its nonlinear sensitivity to El NiÃ±o. Geophysical Research Letters, 2016, 43, 10,472.	1.5	60
42	IPSL-CM5A2 â€“ an Earth system model designed for multi-millennial climate simulations. Geoscientific Model Development, 2020, 13, 3011-3053.	1.3	55
43	Moving towards ambitious climate policies: Monetised health benefits from improved air quality could offset mitigation costs in Europe. Environmental Science and Policy, 2015, 50, 252-269.	2.4	54
44	The European land and inland water CO₂, CO, CH₄ and N₂O balance between 2001 and 2005. Biogeosciences, 2012, 9, 3357-3380.	1.3	53
45	Inter-model comparison of global hydroxyl radical (OH) distributions and their impact on atmospheric methane over the 2000â€“2016 period. Atmospheric Chemistry and Physics, 2019, 19, 13701-13723.	1.9	52
46	The oceanic cycle of carbon monoxide and its emissions to the atmosphere. Biogeosciences, 2019, 16, 881-902.	1.3	42
47	Present and future impact of aircraft, road traffic and shipping emissions on global tropospheric ozone. Atmospheric Chemistry and Physics, 2010, 10, 11681-11705.	1.9	39
48	Relative contributions of biomass burning emissions and atmospheric transport to carbon monoxide interannual variability. Geophysical Research Letters, 2007, 34, .	1.5	34
49	Impact of emissions andÂ+2ÂÂ°C climate change upon future ozone and nitrogen dioxide over Europe. Atmospheric Environment, 2016, 142, 271-285.	1.9	31
50	Future impact of non-land based traffic emissions on atmospheric ozone and OH â€“ an optimistic scenario and a possible mitigation strategy. Atmospheric Chemistry and Physics, 2011, 11, 11293-11317.	1.9	30
51	Climate impact of stratospheric ozone recovery. Geophysical Research Letters, 2013, 40, 2796-2800.	1.5	27
52	Climate change penalty and benefit on surface ozone: a global perspective based on CMIP6 earth system models. Environmental Research Letters, 2022, 17, 024014.	2.2	27
53	An ensemble assessment of regional ozone model uncertainty with an explicit error representation. Atmospheric Environment, 2011, 45, 784-793.	1.9	26
54	Impact of the Asian monsoon anticyclone on the variability of mid-to-upper tropospheric methane above the Mediterranean Basin. Atmospheric Chemistry and Physics, 2014, 14, 11427-11446.	1.9	26

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55	Assimilation of IASI satellite CO fields into a global chemistry transport model for validation against aircraft measurements. Atmospheric Chemistry and Physics, 2012, 12, 4493-4512.	1.9	23
56	Reviews and syntheses: influences of landscape structure and land uses on local to regional climate and air quality. Biogeosciences, 2019, 16, 2369-2408.	1.3	22
57	Global Chemistry Simulations in the AMMA Multimodel Intercomparison Project. Bulletin of the American Meteorological Society, 2010, 91, 611-624.	1.7	21
58	Acetone variability in the upper troposphere: analysis of CARIBIC observations and LMDz-INCA chemistry-climate model simulations. Atmospheric Chemistry and Physics, 2011, 11, 8053-8074.	1.9	20
59	A three-dimensional synthesis inversion of the molecular hydrogen cycle: Sources and sinks budget and implications for the soil uptake. Journal of Geophysical Research, 2011, 116, .	3.3	19
60	Sources and Sinks of Isoprene in the Global Open Ocean: Simulated Patterns and Emissions to the Atmosphere. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015946.	1.0	19
61	A 3â€‰Â°C global RCP8.5 emission trajectory cancels benefits of European emission reductions on air quality. Nature Communications, 2017, 8, 89.	5.8	14
62	Relative impacts of worldwide tropospheric ozone changes and regional emission modifications on European surface-ozone levels. Comptes Rendus - Geoscience, 2007, 339, 709-720.	0.4	13
63	Emission sources contributing to tropospheric ozone over Equatorial Africa during the summer monsoon. Atmospheric Chemistry and Physics, 2011, 11, 13395-13419.	1.9	13
64	Future impact of traffic emissions on atmospheric ozone and OH based on two scenarios. Atmospheric Chemistry and Physics, 2012, 12, 12211-12225.	1.9	13
65	Impact of future land-cover changes on HNO₃ and O₃ surface dry deposition. Atmospheric Chemistry and Physics, 2015, 15, 13555-13568.	1.9	12
66	LMDzT-INCA dust forecast model developments and associated validation efforts. IOP Conference Series: Earth and Environmental Science, 2009, 7, 012014.	0.2	9
67	Seasonal variations of acetone in the upper troposphereâ€“lower stratosphere of the northern midlatitudes as observed by ACE-FTS. Journal of Molecular Spectroscopy, 2016, 323, 67-77.	0.4	9
68	Role of the stratospheric chemistryâ€“climate interactions in the hot climate conditions of the Eocene. Climate of the Past, 2019, 15, 1187-1203.	1.3	6
69	Isoprene contribution to ozone production under climate change conditions in the French Mediterranean area. Regional Environmental Change, 2020, 20, 1.	1.4	6
70	Assessment of ozone impacts on farming systems: A bio-economic modeling approach applied to the widely diverse French case. Ecological Economics, 2013, 85, 50-58.	2.9	4
71	Chapter 2.13 Modelling regional air quality over decades: Past and future trends in photochemical smog. Developments in Environmental Science, 2007, 6, 210-219.	0.5	3
72	Peroxy acetyl nitrate (PAN) measurements at northern midlatitude mountain sites in April: a constraint on continental sourceâ€“receptor relationships. Atmospheric Chemistry and Physics, 2018, 18, 15345-15361.	1.9	3