Graham Mann

List of Publications by Year
in descending order

99 papers	10,457 citations	44444 50 h-index	46524 93 g-index
172 all docs	172 docs citations	172 times ranked	9784 citing authors

#	Article	IF	Citations
1	A single-peak-structured solar cycle signal in stratospheric ozone based on Microwave Limb Sounder observations and model simulations. Atmospheric Chemistry and Physics, 2022, 22, 903-916.	1.9	7
2	Effects of forcing differences and initial conditions on inter-model agreement in the VolMIP volc-pinatubo-full experiment. Geoscientific Model Development, 2022, 15, 2265-2292.	1.3	22
3	Ablation Rates of Organic Compounds in Cosmic Dust and Resulting Changes in Mechanical Properties During Atmospheric Entry. Earth and Space Science, 2022, 9, .	1.1	4
4	Model physics and chemistry causing intermodel disagreement within the VolMIP-Tambora Interactive Stratospheric Aerosol ensemble. Atmospheric Chemistry and Physics, 2021, 21, 3317-3343.	1.9	33
5	Unknown Eruption Source Parameters Cause Large Uncertainty in Historical Volcanic Radiative Forcing Reconstructions. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033578.	1.2	9
6	Recovery of the first ever multi-year lidar dataset of the stratospheric aerosol layer, from Lexington, MA, and Fairbanks, AK, January 1964 to July 1965. Earth System Science Data, 2021, 13, 4407-4423.	3.7	0
7	Reconciling the climate and ozone response to the 1257 CE Mount Samalas eruption. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26651-26659.	3.3	15
8	Evaluating the simulated radiative forcings, aerosol properties, and stratospheric warmings from the 1963 Mt Agung, 1982 El ChichÃ³n, and 1991 Mt Pinatubo volcanic aerosol clouds. Atmospheric Chemistry and Physics, 2020, 20, 13627-13654.	1.9	22
9	Shipborne lidar measurements showing the progression of the tropical reservoir of volcanic aerosol after the June 1991 Pinatubo eruption. Earth System Science Data, 2020, 12, 2843-2851.	3.7	1
10	Description and evaluation of aerosol in UKESM1 and HadGEM3-GC3.1 CMIP6 historical simulations. Geoscientific Model Development, 2020, 13, 6383-6423.	1.3	83
11	The roles of volatile organic compound deposition and oxidation mechanisms in determining secondary organic aerosol production: aÂglobal perspective using the UKCA chemistryâ€"climate model (vn8.4). Geoscientific Model Development, 2019, 12, 2539-2569.	1.3	4
12	Ensembles of Global Climate Model Variants Designed for the Quantification and Constraint of Uncertainty in Aerosols and Their Radiative Forcing. Journal of Advances in Modeling Earth Systems, 2019, 11, 3728-3754.	1.3	33
13	Introduction to the special issue â€œIn-depth study of air pollution sources and processes within Beijing and its surrounding region (APHH-Beijing)â€. Atmospheric Chemistry and Physics, 2019, 19, 7519-7546.	1.9	95
14	The Met Office Unified Model Global Atmosphere 7.0/7.1 and JULES Global Land 7.0 configurations. Geoscientific Model Development, 2019, 12, 1909-1963.	1.3	372
15	Exploring How Eruption Source Parameters Affect Volcanic Radiative Forcing Using Statistical Emulation. Journal of Geophysical Research D: Atmospheres, 2019, 124, 964-985.	1.2	40
16	The Impact of Changes in Cloud Water pH on Aerosol Radiative Forcing. Geophysical Research Letters, 2019, 46, 4039-4048.	1.5	31
17	Multi-model comparison of the volcanic sulfate deposition from the 1815 eruption of Mt.ÂTambora. Atmospheric Chemistry and Physics, 2018, 18, 2307-2328.	1.9	41
18	The Interactive Stratospheric Aerosol Model Intercomparison ProjectÂ(ISA-MIP): motivation and experimental design. Geoscientific Model Development, 2018, 11, 2581-2608.	1.3	57

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19	The impact of biogenic, anthropogenic, and biomass burning volatile organic compound emissions on regional and seasonal variations in secondary organic aerosol. Atmospheric Chemistry and Physics, 2018, 18, 7393-7422.	1.9	71
20	The Global Aerosol Synthesis and Science Project (GASSP): Measurements and Modeling to Reduce Uncertainty. Bulletin of the American Meteorological Society, 2017, 98, 1857-1877.	1.7	52
21	Strong constraints on aerosolâ€“cloud interactions from volcanic eruptions. Nature, 2017, 546, 485-491.	13.7	191
22	Global and regional trends in particulate air pollution and attributable health burden over the past 50 years. Environmental Research Letters, 2017, 12, 104017.	2.2	90
23	Meteoric Smoke Deposition in the Polar Regions: A Comparison of Measurements With Global Atmospheric Models. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,112.	1.2	16
24	Spatial and temporal CCN variations in convection-permitting aerosol microphysics simulations in an idealised marine tropical domain. Atmospheric Chemistry and Physics, 2017, 17, 3371-3384.	1.9	8
25	Size-resolved simulations of the aerosol inorganic composition with the new hybrid dissolution solver HyDiS-1.0: description, evaluation and first global modelling results. Geoscientific Model Development, 2016, 9, 3875-3906.	1.3	8
26	The Model Intercomparison Project on the climatic response to Volcanic forcing (VolMIP): experimental design and forcing input data for CMIP6. Geoscientific Model Development, 2016, 9, 2701-2719.	1.3	138
27	The impact of European legislative and technology measures to reduce air pollutants on air quality, human health and climate. Environmental Research Letters, 2016, 11, 024010.	2.2	50
28	On the ambiguous nature of the 11â€‰year solar cycle signal in upper stratospheric ozone. Geophysical Research Letters, 2016, 43, 7241-7249.	1.5	43
29	Global atmospheric particle formation from CERN CLOUD measurements. Science, 2016, 354, 1119-1124.	6.0	289
30	Evaluation of biomass burning aerosols in the HadGEM3 climate model with observations from the SAMBBA field campaign. Atmospheric Chemistry and Physics, 2016, 16, 14657-14685.	1.9	41
31	What controls the vertical distribution of aerosol? Relationships between process sensitivity in HadGEM3â€“UKCA and inter-model variation from AeroCom Phase II. Atmospheric Chemistry and Physics, 2016, 16, 2221-2241.	1.9	82
32	Impacts of aviation fuel sulfur content on climate and human health. Atmospheric Chemistry and Physics, 2016, 16, 10521-10541.	1.9	33
33	Selective environmental stress from sulphur emitted by continental flood basalt eruptions. Nature Geoscience, 2016, 9, 77-82.	5.4	92
34	Spatial and Temporal Variations in Aerosol Properties in High-Resolution Convection-Permitting Simulations in an Idealized Tropical Marine Domain. Springer Proceedings in Complexity, 2016, , 61-64.	0.2	0
35	Precipitation sensitivity to autoconversion rate in a numerical weatherâ€prediction model. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 2032-2044.	1.0	9
36	Modelled and observed changes in aerosols and surface solar radiation over Europe between 1960 and 2009. Atmospheric Chemistry and Physics, 2015, 15, 9477-9500.	1.9	61

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37	Impact of gas-to-particle partitioning approaches on the simulated radiative effects of biogenic secondary organic aerosol. Atmospheric Chemistry and Physics, 2015, 15, 12989-13001.	1.9	37
38	The Climatic Importance of Uncertainties in Regional Aerosolâ€"Cloud Radiative Forcings over Recent Decades. Journal of Climate, 2015, 28, 6589-6607.	1.2	18
39	Revisiting the hemispheric asymmetry in midlatitude ozone changes following the Mount Pinatubo eruption: A 3â€D model study. Geophysical Research Letters, 2015, 42, 3038-3047.	1.5	47
40	Suppression of <scp>CCN</scp> formation by bromine chemistry in the remote marine atmosphere. Atmospheric Science Letters, 2015, 16, 141-147.	0.8	4
41	Evolving particle size is the key to improved volcanic forcings. Past Global Change Magazine, 2015, 23, 52-53.	0.4	12
42	Uncertainty in the magnitude of aerosolâ€cloud radiative forcing over recent decades. Geophysical Research Letters, 2014, 41, 9040-9049.	1.5	49
43	The AeroCom evaluation and intercomparison of organic aerosol in global models. Atmospheric Chemistry and Physics, 2014, 14, 10845-10895.	1.9	363
44	The complex response of Arctic aerosol to sea-ice retreat. Atmospheric Chemistry and Physics, 2014, 14, 7543-7557.	1.9	81
45	Aerosol microphysics simulations of the Mt.~Pinatubo eruption with the UM-UKCA composition-climate model. Atmospheric Chemistry and Physics, 2014, 14, 11221-11246.	1.9	62
46	An AeroCom assessment of black carbon in Arctic snow and sea ice. Atmospheric Chemistry and Physics, 2014, 14, 2399-2417.	1.9	86
47	The direct and indirect radiative effects of biogenic secondary organic aerosol. Atmospheric Chemistry and Physics, 2014, 14, 447-470.	1.9	175
48	The importance of vertical velocity variability for estimates of the indirect aerosol effects. Atmospheric Chemistry and Physics, 2014, 14, 6369-6393.	1.9	73
49	Intercomparison and evaluation of global aerosol microphysical properties among AeroCom models of a range of complexity. Atmospheric Chemistry and Physics, 2014, 14, 4679-4713.	1.9	148
50	Large contribution of natural aerosols to uncertainty in indirect forcing. Nature, 2013, 503, 67-71.	13.7	814
51	The magnitude and sources of uncertainty in global aerosol. Faraday Discussions, 2013, 165, 495.	1.6	29
52	New approaches to quantifying the magnitude and causes of uncertainty in global aerosol models. , 2013, , .		0
53	The mass and number size distributions of black carbon aerosol over Europe. Atmospheric Chemistry and Physics, 2013, 13, 4917-4939.	1.9	96
54	Sensitivity of cloud condensation nuclei to regional changes in dimethyl-sulphide emissions. Atmospheric Chemistry and Physics, 2013, 13, 2723-2733.	1.9	83

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55	Corrigendum to "The magnitude and causes of uncertainty in global model simulations of cloud condensation nuclei" published in Atmos. Chem. Phys., 13, 8879â€“8914, 2013. Atmospheric Chemistry and Physics, 2013, 13, 9375-9377.	1.9	3
56	Impact of the modal aerosol scheme GLOMAP-mode on aerosol forcing in the Hadley Centre Global Environmental Model. Atmospheric Chemistry and Physics, 2013, 13, 3027-3044.	1.9	106
57	Constraints on aerosol processes in climate models from vertically-resolved aircraft observations of black carbon. Atmospheric Chemistry and Physics, 2013, 13, 5969-5986.	1.9	79
58	The magnitude and causes of uncertainty in global model simulations of cloud condensation nuclei. Atmospheric Chemistry and Physics, 2013, 13, 8879-8914.	1.9	211
59	Natural aerosol direct and indirect radiative effects. Geophysical Research Letters, 2013, 40, 3297-3301.	1.5	150
60	A multi-model assessment of the impact of sea spray geoengineering on cloud droplet number. Atmospheric Chemistry and Physics, 2012, 12, 11647-11663.	1.9	19
61	Intercomparison of modal and sectional aerosol microphysics representations within the same 3-D global chemical transport model. Atmospheric Chemistry and Physics, 2012, 12, 4449-4476.	1.9	101
62	Mapping the uncertainty in global CCN using emulation. Atmospheric Chemistry and Physics, 2012, 12, 9739-9751.	1.9	85
63	Importance of tropospheric volcanic aerosol for indirect radiative forcing of climate. Atmospheric Chemistry and Physics, 2012, 12, 7321-7339.	1.9	116
64	Influence of chemical weathering and aging of iron oxides on the potential iron solubility of Saharan dust during simulated atmospheric processing. Global Biogeochemical Cycles, 2011, 25, n/a-n/a.	1.9	90
65	Aerosol mass spectrometer constraint on the global secondary organic aerosol budget. Atmospheric Chemistry and Physics, 2011, 11, 12109-12136.	1.9	421
66	Emulation of a complex global aerosol model to quantify sensitivity to uncertain parameters. Atmospheric Chemistry and Physics, 2011, 11, 12253-12273.	1.9	128
67	Modelling the effect of denitrification on polar ozone depletion for Arctic winter 2004/2005. Atmospheric Chemistry and Physics, 2011, 11, 6559-6573.	1.9	35
68	Large methane releases lead to strong aerosol forcing and reduced cloudiness. Atmospheric Chemistry and Physics, 2011, 11, 6961-6969.	1.9	14
69	Minor effect of physical size sorting on iron solubility of transported mineral dust. Atmospheric Chemistry and Physics, 2011, 11, 8459-8469.	1.9	44
70	Excess mortality in Europe following a future Laki-style Icelandic eruption. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 15710-15715.	3.3	91
71	The impact of the 1783â€“1784 AD Laki eruption on global aerosol formation processes and cloud condensation nuclei. Atmospheric Chemistry and Physics, 2010, 10, 6025-6041.	1.9	68
72	A review of natural aerosol interactions and feedbacks within the Earth system. Atmospheric Chemistry and Physics, 2010, 10, 1701-1737.	1.9	542

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73	Low sensitivity of cloud condensation nuclei to changes in the sea-air flux of dimethyl-sulphide. Atmospheric Chemistry and Physics, 2010, 10, 7545-7559.	1.9	105
74	The impact of dust on sulfate aerosol, CN and CCN during an East Asian dust storm. Atmospheric Chemistry and Physics, 2010, 10, 365-382.	1.9	102
75	Description and evaluation of GLOMAP-mode: a modal global aerosol microphysics model for the UKCA composition-climate model. Geoscientific Model Development, 2010, 3, 519-551.	1.3	406
76	Explaining global surface aerosol number concentrations in terms of primary emissions and particle formation. Atmospheric Chemistry and Physics, 2010, 10, 4775-4793.	1.9	212
77	Impact of BrO on dimethylsulfide in the remote marine boundary layer. Geophysical Research Letters, 2010, 37, .	1.5	75
78	Impact of nucleation on global CCN. Atmospheric Chemistry and Physics, 2009, 9, 8601-8616.	1.9	732
79	Variable CCN formation potential of regional sulfur emissions. Atmospheric Chemistry and Physics, 2009, 9, 3253-3259.	1.9	19
80	The relationship between aerosol and cloud drop number concentrations in a global aerosol microphysics model. Atmospheric Chemistry and Physics, 2009, 9, 4131-4144.	1.9	65
81	New Directions: The impact of oceanic iron fertilisation on cloud condensation nuclei. Atmospheric Environment, 2008, 42, 5728-5730.	1.9	30
82	Contribution of particle formation to global cloud condensation nuclei concentrations. Geophysical Research Letters, 2008, 35, .	1.5	400
83	Influence of oceanic dimethyl sulfide emissions on cloud condensation nuclei concentrations and seasonality over the remote Southern Hemisphere oceans: A global model study. Journal of Geophysical Research, 2008, 113, .	3.3	162
84	Evaluation of a global aerosol microphysics model against size-resolved particle statistics in the marine atmosphere. Atmospheric Chemistry and Physics, 2007, 7, 2073-2090.	1.9	50
85	Regional and global trends in sulfate aerosol since the 1980s. Geophysical Research Letters, 2007, 34, .	1.5	81
86	The contribution of boundary layer nucleation events to total particle concentrations on regional and global scales. Atmospheric Chemistry and Physics, 2006, 6, 5631-5648.	1.9	364
87	Testing our understanding of Arctic denitrification using MIPAS-E satellite measurements in winter 2002/2003. Atmospheric Chemistry and Physics, 2006, 6, 3149-3161.	1.9	12
88	A global off-line model of size-resolved aerosol microphysics: I. Model development and prediction of aerosol properties. Atmospheric Chemistry and Physics, 2005, 5, 2227-2252.	1.9	257
89	A global off-line model of size-resolved aerosol microphysics: II. Identification of key uncertainties. Atmospheric Chemistry and Physics, 2005, 5, 3233-3250.	1.9	111
90	3-D microphysical model studies of Arctic denitrification: comparison with observations. Atmospheric Chemistry and Physics, 2005, 5, 3093-3109.	1.9	21

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91	Large nitric acid trihydrate particles and denitrification caused by mountain waves in the Arctic stratosphere. Journal of Geophysical Research, 2005, 110, .	3.3	28
92	Wind-borne redistribution of snow across an Antarctic ice rise. Journal of Geophysical Research, 2004, 109, .	3.3	48
93	Imaging of firn isochrones across an Antarctic ice rise and implications for patterns of snow accumulation rate. Journal of Glaciology, 2004, 50, 413-418.	1.1	22
94	Factors controlling Arctic denitrification in cold winters of the 1990s. Atmospheric Chemistry and Physics, 2003, 3, 403-416.	1.9	32
95	Polar vortex concentricity as a controlling factor in Arctic denitrification. Journal of Geophysical Research, 2002, 107, AAC 13-1.	3.3	26
96	The seasonal cycle of sublimation at Halley, Antarctica. Journal of Glaciology, 2001, 47, 1-8.	1.1	41
97	An Intercomparison Among Four Models Of Blowing Snow. Boundary-Layer Meteorology, 2000, 97, 109-135.	1.2	66
98	Profile measurements of blowing snow at Halley, Antarctica. Journal of Geophysical Research, 2000, 105, 24491-24508.	3.3	140
99	Azimuthally Propagating Ring Vortices in a Model for Nonaxisymmetric Taylor Vortex Flow. Physical Review Letters, 1995, 75, 4610-4613.	2.9	5