Fiona M O'connor

List of Publications by Year
in descending order

95 papers	8,587 citations	76196 40 h-index	51492 86 g-index
142 all docs	142 docs citations	142 times ranked	9377 citing authors

#	Article	IF	Citations
1	Development and evaluation of an Earth-System model â€“ HadGEM2. Geoscientific Model Development, 2011, 4, 1051-1075.	1.3	1,141
2	The HadGEM2-ES implementation of CMIP5 centennial simulations. Geoscientific Model Development, 2011, 4, 543-570.	1.3	803
3	The HadGEM2 family of Met Office Unified Model climate configurations. Geoscientific Model Development, 2011, 4, 723-757.	1.3	765
4	UKESM1: Description and Evaluation of the U.K. Earth System Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 4513-4558.	1.3	448
5	Global air quality and climate. Chemical Society Reviews, 2012, 41, 6663.	18.7	428
6	Review of the global models used within phase 1 of the Chemistryâ€“Climate Model Initiative (CCMI). Geoscientific Model Development, 2017, 10, 639-671.	1.3	277
7	Evaluation of the new UKCA climate-composition model â€“ Part 1: The stratosphere. Geoscientific Model Development, 2009, 2, 43-57.	1.3	243
8	Tropospheric bromine chemistry and its impacts on ozone: A model study. Journal of Geophysical Research, 2005, 110, .	3.3	234
9	Prolonged stratospheric ozone loss in the 1995â€“96 Arctic winter. Nature, 1997, 389, 835-838.	13.7	216
10	Possible role of wetlands, permafrost, and methane hydrates in the methane cycle under future climate change: A review. Reviews of Geophysics, 2010, 48, .	9.0	199
11	Evaluation of the new UKCA climate-composition model â€“ Part 2: The Troposphere. Geoscientific Model Development, 2014, 7, 41-91.	1.3	191
12	Strong constraints on aerosolâ€“cloud interactions from volcanic eruptions. Nature, 2017, 546, 485-491.	13.7	191
13	Effective radiative forcing and adjustments in CMIP6 models. Atmospheric Chemistry and Physics, 2020, 20, 9591-9618.	1.9	149
14	Global modeling of biogenic bromocarbons. Journal of Geophysical Research, 2006, 111, .	3.3	138
15	Estimates of ozone return dates from Chemistry-Climate Model Initiative simulations. Atmospheric Chemistry and Physics, 2018, 18, 8409-8438.	1.9	128
16	Description and evaluation of the UKCA stratosphereâ€“troposphere chemistry scheme (StratTrop vn) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.3	109
17	Historical and future changes in air pollutants from CMIP6 models. Atmospheric Chemistry and Physics, 2020, 20, 14547-14579.	1.9	105
18	Air quality modelling using the Met Office Unified Model (AQUM OS24-26): model description and initial evaluation. Geoscientific Model Development, 2013, 6, 353-372.	1.3	97

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19	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
20	Chemical Ozone Loss in the Arctic Winter 1994/95 as Determined by the Match Technique. Journal of Atmospheric Chemistry, 1999, 32, 35-59.	1.4	90
21	The World Avoided by the Montreal Protocol. Geophysical Research Letters, 2008, 35, .	1.5	90
22	Tropospheric ozone in CMIP6 simulations. Atmospheric Chemistry and Physics, 2021, 21, 4187-4218.	1.9	89
23	Implementation of the Fast-JX Photolysis scheme (v6.4) into the UKCA component of the MetUM chemistry-climate model (v7.3). Geoscientific Model Development, 2013, 6, 161-177.	1.3	84
24	Implementation of U.K. Earth System Models for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001946.	1.3	83
25	Description and evaluation of aerosol in UKESM1 and HadGEM3-GC3.1 CMIP6 historical simulations. Geoscientific Model Development, 2020, 13, 6383-6423.	1.3	83
26	Climate change impacts on human health over Europe through its effect on air quality. Environmental Health, 2017, 16, 118.	1.7	80
27	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
28	Stratospheric ozone loss over the Eurasian continent induced by the polar vortex shift. Nature Communications, 2018, 9, 206.	5.8	69
29	Effective radiative forcing from emissions of reactive gases and aerosols â€“ a multi-model comparison. Atmospheric Chemistry and Physics, 2021, 21, 853-874.	1.9	65
30	Title is missing!. Journal of Atmospheric Chemistry, 1998, 30, 187-207.	1.4	64
31	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
32	Estimating photochemically produced ozone throughout a domain using flight data and a Lagrangian model. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	56
33	Forest fire plumes over the North Atlantic: p-TOMCAT model simulations with aircraft and satellite measurements from the ITOP/ICARTT campaign. Journal of Geophysical Research, 2007, 112, .	3.3	55
34	Impacts of climate change, ozone recovery, and increasing methane on surface ozone and the tropospheric oxidizing capacity. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1028-1041.	1.2	55
35	Trends in global tropospheric hydroxyl radical and methane lifetime since 1850 from AerChemMIP. Atmospheric Chemistry and Physics, 2020, 20, 12905-12920.	1.9	55
36	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

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37	Revisiting the Mystery of Recent Stratospheric Temperature Trends. Geophysical Research Letters, 2018, 45, 9919-9933.	1.5	51
38	Processes Controlling Tropical Tropopause Temperature and Stratospheric Water Vapor in Climate Models. Journal of Climate, 2015, 28, 6516-6535.	1.2	47
39	The impact of future emission policies on tropospheric ozone using a parameterised approach. Atmospheric Chemistry and Physics, 2018, 18, 8953-8978.	1.9	47
40	Historical total ozone radiative forcing derived from CMIP6 simulations. Npj Climate and Atmospheric Science, 2020, 3, .	2.6	44
41	Atmospheric methane removal: a research agenda. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200454.	1.6	44
42	An intercomparison of ground-based UV-visible sensors of ozone and NO2. Journal of Geophysical Research, 1997, 102, 1411-1422.	3.3	43
43	No robust evidence of future changes in major stratospheric sudden warmings: a multi-model assessment from CCMI. Atmospheric Chemistry and Physics, 2018, 18, 11277-11287.	1.9	41
44	Effects of climate-induced changes in isoprene emissions after the eruption of Mount Pinatubo. Atmospheric Chemistry and Physics, 2010, 10, 7117-7125.	1.9	39
45	Climate-driven chemistry and aerosol feedbacks in CMIP6 Earth system models. Atmospheric Chemistry and Physics, 2021, 21, 1105-1126.	1.9	39
46	Tropospheric jet response to Antarctic ozone depletion: An update with Chemistry-Climate Model Initiative (CCMI) models. Environmental Research Letters, 2018, 13, 054024.	2.2	38
47	Global sensitivity analysis of chemistryâ€“climate model budgets of tropospheric ozone and OH: exploring model diversity. Atmospheric Chemistry and Physics, 2020, 20, 4047-4058.	1.9	38
48	Understanding the glacial methane cycle. Nature Communications, 2017, 8, 14383.	5.8	37
49	Quantifying the impact of current and future concentrations of air pollutants on respiratory disease risk in England. Environmental Health, 2017, 16, 29.	1.7	35
50	The Met Office HadGEM3-ES chemistryâ€“climate model: evaluation of stratospheric dynamics and its impact on ozone. Geoscientific Model Development, 2017, 10, 1209-1232.	1.3	34
51	Methane removal and the proportional reductions in surface temperature and ozone. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20210104.	1.6	33
52	The Impact of Changes in Cloud Water pH on Aerosol Radiative Forcing. Geophysical Research Letters, 2019, 46, 4039-4048.	1.5	31
53	Climate and air quality impacts due to mitigation of non-methane near-term climate forcers. Atmospheric Chemistry and Physics, 2020, 20, 9641-9663.	1.9	30
54	Comparison of the HadGEM2 climate-chemistry model against in situ and SCIAMACHY atmospheric methane data. Atmospheric Chemistry and Physics, 2014, 14, 13257-13280.	1.9	29

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55	Assessment of pre-industrial to present-day anthropogenic climate forcing in UKESM1. Atmospheric Chemistry and Physics, 2021, 21, 1211-1243.	1.9	29
56	Accuracy of measurements of total ozone by a SAOZ ground-based zenith sky visible spectrometer. Journal of Geophysical Research, 1997, 102, 1379-1390.	3.3	27
57	Tropospheric ozone in CCMI models and Gaussian process emulation to understand biases in the SOCOLv3 chemistryâ€"climate model. Atmospheric Chemistry and Physics, 2018, 18, 16155-16172.	1.9	27
58	The influence of model spatial resolution on simulated ozone and fine particulate matter for Europe: implications for health impact assessments. Atmospheric Chemistry and Physics, 2018, 18, 5765-5784.	1.9	27
59	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
60	Comparison and visualisation of high-resolution transport modelling with aircraft measurements. Atmospheric Science Letters, 2005, 6, 164-170.	0.8	26
61	Observation of near-zero ozone concentrations in the upper troposphere at mid-latitudes. Geophysical Research Letters, 1998, 25, 1173-1176.	1.5	25
62	Interactions between tropospheric chemistry and climate model temperature and humidity biases. Geophysical Research Letters, 2009, 36, .	1.5	22
63	300 years of tropospheric ozone changes using CMIP6 scenarios with a parameterised approach. Atmospheric Environment, 2019, 213, 686-698.	1.9	22
64	Clear-sky ultraviolet radiation modelling using output from the Chemistry Climate Model Initiative. Atmospheric Chemistry and Physics, 2019, 19, 10087-10110.	1.9	22
65	Meteorological drivers and mortality associated with O3 and PM2.5 air pollution episodes in the UK in 2006. Atmospheric Environment, 2019, 213, 699-710.	1.9	21
66	The Impact of Prescribed Ozone in Climate Projections Run With HadGEM3â€GC3.1. Journal of Advances in Modeling Earth Systems, 2019, 11, 3443-3453.	1.3	20
67	Evaluation of natural aerosols in CRESCENDO Earth system models (ESMs): mineral dust. Atmospheric Chemistry and Physics, 2021, 21, 10295-10335.	1.9	20
68	A quantitative analysis of grid-related systematic errors in oxidising capacity and ozone production rates in chemistry transport models. Atmospheric Chemistry and Physics, 2004, 4, 1781-1795.	1.9	19
69	Contrasting chemical environments in summertime for atmospheric ozone across major Chinese industrial regions: the effectiveness of emission control strategies. Atmospheric Chemistry and Physics, 2021, 21, 10689-10706.	1.9	18
70	The role of future anthropogenic methane emissions in air quality and climate. Npj Climate and Atmospheric Science, 2022, 5, .	2.6	18
71	Reappraisal of the Climate Impacts of Ozoneâ€Depleting Substances. Geophysical Research Letters, 2020, 47, e2020GL088295.	1.5	16
72	Influence of Arctic stratospheric ozone on surface climate in CCMI models. Atmospheric Chemistry and Physics, 2019, 19, 9253-9268.	1.9	15

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73	A description and evaluation of an air quality model nested within global and regional composition-climate models using MetUM. Geoscientific Model Development, 2017, 10, 3941-3962.	1.3	14
74	Significant climate benefits from near-term climate forcer mitigation in spite of aerosol reductions. Environmental Research Letters, 0, , .	2.2	14
75	Observations of Streamers in the Troposphere and Stratosphere Using Ozone Lidar. Journal of Atmospheric Chemistry, 2001, 38, 295-315.	1.4	13
76	Regional Features of Long-Term Exposure to PM2.5 Air Quality over Asia under SSP Scenarios Based on CMIP6 Models. International Journal of Environmental Research and Public Health, 2021, 18, 6817.	1.2	10
77	No Robust Evidence of Future Changes in Major Stratospheric Sudden Warmings: A Multi-model Assessment from CCMI. Atmospheric Chemistry and Physics, 2018, 18, 11277-11287.	1.9	10
78	Tropospheric ozone changes and ozone sensitivity from the present day to the future under shared socio-economic pathways. Atmospheric Chemistry and Physics, 2022, 22, 1209-1227.	1.9	10
79	Changes in anthropogenic precursor emissions drive shifts in the ozone seasonal cycle throughout the northern midlatitude troposphere. Atmospheric Chemistry and Physics, 2022, 22, 3507-3524.	1.9	10
80	Description and Evaluation of an Emissionâ€Driven and Fully Coupled Methane Cycle in UKESM1. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	9
81	Influence of the El NiÃ±oâ€"Southern Oscillation on entry stratospheric water vapor in coupled chemistryâ€"ocean CCMI and CMIP6 models. Atmospheric Chemistry and Physics, 2021, 21, 3725-3740.	1.9	8
82	Investigations on the anthropogenic reversal of the natural ozone gradient between northern and southern midlatitudes. Atmospheric Chemistry and Physics, 2021, 21, 9669-9679.	1.9	8
83	Constraining tropospheric mixing timescales using airborne observations and numerical models. Atmospheric Chemistry and Physics, 2003, 3, 1023-1035.	1.9	6
84	The Common Representative Intermediates Mechanism Version 2 in the United Kingdom Chemistry and Aerosols Model. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002420.	1.3	6
85	Future air pollution related health burdens associated with RCP emission changes in the UK. Science of the Total Environment, 2021, 773, 145635.	3.9	6
86	Ultraviolet Radiation modelling using output from the Chemistry Climate Model Initiative. , 2019, 19, 10087-10110.		5
87	The Impacts of Aerosol Emissions on Historical Climate in UKESM1. Atmosphere, 2020, 11, 1095.	1.0	5
88	Coupling interactive fire with atmospheric composition and climate in the UK Earth System Model. Geoscientific Model Development, 2021, 14, 6515-6539.	1.3	5
89	Air quality improvements are projected to weaken the Atlantic meridional overturning circulation through radiative forcing effects. Communications Earth & Environment, 2022, 3, .	2.6	5
90	Attribution of Stratospheric and Tropospheric Ozone Changes Between 1850 and 2014 in CMIP6 Models. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	5

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91	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
92	The impact of climate mitigation measures on near term climate forcers. Environmental Research Letters, 2019, 14, 104013.	2.2	3
93	Observations of subtropical air in the european mid-latitude lower stratosphere. , 1999, 125, 2965.		2
94	Using Machine Learning to Make Computationally Inexpensive Projections of 21st Century Stratospheric Column Ozone Changes in the Tropics. Frontiers in Earth Science, 2021, 8, .	0.8	1
95	Climate Change Impacts on Air Pollution in Northern Europe. Springer Climate, 2018, , 49-67.	0.3	1