Paul Griffiths

List of Publications by Year
in descending order

#	Article	IF	Citations
1	UKESM1: Description and Evaluation of the U.K. Earth System Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 4513-4558.	3.8	448
2	An overview of current issues in the uptake of atmospheric trace gases by aerosols and clouds. Atmospheric Chemistry and Physics, 2010, 10, 10561-10605.	4.9	352
3	Methane Mitigation: Methods to Reduce Emissions, on the Path to the Paris Agreement. Reviews of Geophysics, 2020, 58, e2019RG000675.	23.0	163
4	Photochemical production of aerosols from real plant emissions. Atmospheric Chemistry and Physics, 2009, 9, 4387-4406.	4.9	133
5	Description and evaluation of the UKCA stratosphereâ€“troposphere chemistry scheme (StratTrop vn) Tj ETQq1 1 0.784314 rgBT /Overl	3.6	109
6	Reactive Uptake of N2O5by Aerosol Particles Containing Mixtures of Humic Acid and Ammonium Sulfateâ€. Journal of Physical Chemistry A, 2006, 110, 6986-6994.	2.5	105
7	Ascorbate oxidation by iron, copper and reactive oxygen species: review, model development, and derivation of key rate constants. Scientific Reports, 2021, 11, 7417.	3.3	103
8	Reduction of NO2 to nitrous acid on illuminated titanium dioxide aerosol surfaces: implications for photocatalysis and atmospheric chemistry. Chemical Communications, 2006, , 3936.	4.1	102
9	A comprehensive evaluation of water uptake on atmospherically relevant mineral surfaces: DRIFT spectroscopy, thermogravimetric analysis and aerosol growth measurements. Atmospheric Chemistry and Physics, 2005, 5, 3415-3421.	4.9	99
10	Solar driven nitrous acid formation on building material surfaces containing titanium dioxide: A concern for air quality in urban areas?. Atmospheric Environment, 2009, 43, 5128-5131.	4.1	97
11	Tropospheric ozone in CMIP6 simulations. Atmospheric Chemistry and Physics, 2021, 21, 4187-4218.	4.9	89
12	Phase transitions and hygroscopic growth of aerosol particles containing humic acid and mixtures of humic acid and ammonium sulphate. Atmospheric Chemistry and Physics, 2006, 6, 755-768.	4.9	88
13	Studies of Single Aerosol Particles Containing Malonic Acid, Glutaric Acid, and Their Mixtures with Sodium Chloride. I. Hygroscopic Growth. Journal of Physical Chemistry A, 2010, 114, 5335-5341.	2.5	88
14	Modelling reactive halogen formation and ozone depletion in volcanic plumes. Chemical Geology, 2009, 263, 151-163.	3.3	84
15	Implementation of U.K. Earth System Models for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001946.	3.8	83
16	Reactive Uptake of N₂O₅ by Aerosols Containing Dicarboxylic Acids. Effect of Particle Phase, Composition, and Nitrate Content. Journal of Physical Chemistry A, 2009, 113, 5082-5090.	2.5	71
17	Influence of isoprene chemical mechanism on modelled changes in tropospheric ozone due to climate and land use over the 21st century. Atmospheric Chemistry and Physics, 2015, 15, 5123-5143.	4.9	70
18	Reactive uptake coefficients for heterogeneous reaction of N₂O₅ with submicron aerosols of NaCl and natural sea salt. Atmospheric Chemistry and Physics, 2004, 4, 1381-1388.	4.9	56

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19	Trends in global tropospheric hydroxyl radical and methane lifetime since 1850 from AerChemMIP. Atmospheric Chemistry and Physics, 2020, 20, 12905-12920.	4.9	55
20	Studies of Single Aerosol Particles Containing Malonic Acid, Glutaric Acid, and Their Mixtures with Sodium Chloride. II. Liquid-State Vapor Pressures of the Acids. Journal of Physical Chemistry A, 2010, 114, 10156-10165.	2.5	54
21	Evaluating stratospheric ozone and water vapour changes in CMIP6 models from 1850 to 2100. Atmospheric Chemistry and Physics, 2021, 21, 5015-5061.	4.9	54
22	Uptake of Gaseous Hydrogen Peroxide by Submicrometer Titanium Dioxide Aerosol as a Function of Relative Humidity. Environmental Science & Technology, 2010, 44, 1360-1365.	10.0	53
23	Tropospheric Ozone Assessment Report. Elementa, 2020, 8, .	3.2	52
24	A multi-model intercomparison of halogenated very short-lived substances (TransCom-VSLS): linking oceanic emissions and tropospheric transport for a reconciled estimate of the stratospheric source gas injection of bromine. Atmospheric Chemistry and Physics, 2016, 16, 9163-9187.	4.9	51
25	Hygroscopic growth and cloud activation of pollen: a laboratory and modelling study. Atmospheric Science Letters, 2012, 13, 289-295.	1.9	40
26	Electrochemical sensing of volcanic gases. Chemical Geology, 2012, 332-333, 74-91.	3.3	38
27	Comprehensive modeling study of ozonolysis of oleic acid aerosol based on realâ€time, online measurements of aerosol composition. Journal of Geophysical Research D: Atmospheres, 2017, 122, 4364-4377.	3.3	31
28	Assessment of pre-industrial to present-day anthropogenic climate forcing in UKESM1. Atmospheric Chemistry and Physics, 2021, 21, 1211-1243.	4.9	29
29	Temperature dependence of heterogeneous uptake of N₂O₅ by ammonium sulfate aerosol. Atmospheric Science Letters, 2009, 10, 159-163.	1.9	25
30	Methane Emissions in a Chemistryâ€Climate Model: Feedbacks and Climate Response. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002019.	3.8	23
31	Development of a Physiologically Relevant Online Chemical Assay To Quantify Aerosol Oxidative Potential. Analytical Chemistry, 2019, 91, 13088-13095.	6.5	19
32	CRI-HOM: A novel chemical mechanism for simulating highly oxygenated organic molecules (HOMs) in global chemistryâ€"aerosolâ€"climate models. Atmospheric Chemistry and Physics, 2020, 20, 10889-10910.	4.9	19
33	On the changes in surface ozone over the twenty-first century: sensitivity to changes in surface temperature and chemical mechanisms. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190329.	3.4	18
34	On the Changing Role of the Stratosphere on the Tropospheric Ozone Budget: 1979â€"2010. Geophysical Research Letters, 2020, 47, e2019GL086901.	4.0	18
35	The role of future anthropogenic methane emissions in air quality and climate. Npj Climate and Atmospheric Science, 2022, 5, .	6.8	18
36	Laboratory and modelling study of the hygroscopic properties of two model humic acid aerosol particles. Journal of Aerosol Science, 2010, 41, 457-467.	3.8	17

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37	Re-evaluating the reactive uptake of HOBr in the troposphere with implications for the marine boundary layer and volcanic plumes. Atmospheric Chemistry and Physics, 2014, 14, 11185-11199.	4.9	17
38	Heterogeneous reaction of ClONO₂ with TiO₂ and SiO₂ aerosol particles: implications for stratospheric particle injection for climate engineering. Atmospheric Chemistry and Physics, 2016, 16, 15397-15412.	4.9	16
39	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.	7.1	15
40	Stratospheric Ozone Changes From Explosive Tropical Volcanoes: Modeling and Ice Core Constraints. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032290.	3.3	14
41	Opinion: The germicidal effect of ambient air (open-air factor) revisited. Atmospheric Chemistry and Physics, 2021, 21, 13011-13018.	4.9	11
42	Adsorption and Hydrolysis of Alcohols and Carbonyls on Ice at Temperatures of the Upper Troposphere. Journal of Physical Chemistry A, 2012, 116, 5990-6002.	2.5	10
43	Modelling the potential impacts of the recent, unexpected increase in CFC-11 emissions on total column ozone recovery. Atmospheric Chemistry and Physics, 2020, 20, 7153-7166.	4.9	10
44	The Role of Natural Halogens in Global Tropospheric Ozone Chemistry and Budget Under Different 21st Century Climate Scenarios. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034859.	3.3	10
45	Quasi-Newton methods for atmospheric chemistry simulations: implementation in UKCA UM vn10.8. Geoscientific Model Development, 2018, 11, 3089-3108.	3.6	9
46	Measuring Aerosol Phase Changes and Hygroscopicity with a Microresonator Mass Sensor. Analytical Chemistry, 2018, 90, 9716-9724.	6.5	8
47	Influence of Sea Iceâ€Derived Halogens on Atmospheric HO_{<i>x</i>} as Observed in Springtime Coastal Antarctica. Geophysical Research Letters, 2019, 46, 10168-10176.	4.0	8
48	The Evaluation of the North Atlantic Climate System in UKESM1 Historical Simulations for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002126.	3.8	8
49	Ozone Trends from Two Decades of Ground Level Observation in Malaysia. Atmosphere, 2020, 11, 755.	2.3	6
50	The Impacts of Aerosol Emissions on Historical Climate in UKESM1. Atmosphere, 2020, 11, 1095.	2.3	5
51	Attribution of Stratospheric and Tropospheric Ozone Changes Between 1850 and 2014 in CMIP6 Models. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	5