

Martyn Chipperfield

List of Publications by Year in descending order

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353
papers

19,464
citations

14655
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24982
109
g-index

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all docs

508
docs citations

508
times ranked

10438
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Effects of the Tibetan Plateau on total column ozone distribution. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 622. | 1.6 | 68 |
| 2 | 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. | 4.9 | 7 |
| 3 | Responses of Arctic sea ice to stratospheric ozone depletion. Science Bulletin, 2022, 67, 1182-1190. | 9.0 | 20 |
| 4 | Level 2 processor and auxiliary data for ESA Version 8 final full mission analysis of MIPAS measurements on ENVISAT. Atmospheric Measurement Techniques, 2022, 15, 1871-1901. | 3.1 | 2 |
| 5 | Exploiting satellite measurements to explore uncertainties in UK bottom-up NO _x emission estimates. Atmospheric Chemistry and Physics, 2022, 22, 4323-4338. | 4.9 | 9 |
| 6 | A stratospheric prognostic ozone for seamless Earth system models: performance, impacts and future. Atmospheric Chemistry and Physics, 2022, 22, 4277-4302. | 4.9 | 5 |
| 7 | The role of chemical processes in the quasi-biennial oscillation (QBO) signal in stratospheric ozone. Atmospheric Environment, 2021, 244, 117906. | 4.1 | 12 |
| 8 | A decline in global CFC-11 emissions during 2018~2019. Nature, 2021, 590, 428-432. | 27.8 | 55 |
| 9 | Arctic Ozone Depletion in 2019/20: Roles of Chemistry, Dynamics and the Montreal Protocol. Geophysical Research Letters, 2021, 48, e2020GL091911. | 4.0 | 34 |
| 10 | How Robust Is the Apparent Breakdown of Northern High-Latitude Temperature Control on Spring Carbon Uptake?. Geophysical Research Letters, 2021, 48, e2020GL091601. | 4.0 | 2 |
| 11 | The Unusual Stratospheric Arctic Winter 2019/20: Chemical Ozone Loss From Satellite Observations and TOMCAT Chemical Transport Model. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034386. | 3.3 | 19 |
| 12 | Diagnosing air quality changes in the UK during the COVID-19 lockdown using TROPOMI and GEOS-Chem. Environmental Research Letters, 2021, 16, 054031. | 5.2 | 28 |
| 13 | COVID-19 lockdown-induced changes in NO ₂ levels across India observed by multi-satellite and surface observations. Atmospheric Chemistry and Physics, 2021, 21, 5235-5251. | 4.9 | 44 |
| 14 | Fifteen Years of HFC-134a Satellite Observations: Comparisons With SLIMCAT Calculations. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033208. | 3.3 | 7 |
| 15 | Unprecedented Spring 2020 Ozone Depletion in the Context of 20 Years of Measurements at Eureka, Canada. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034365. | 3.3 | 7 |
| 16 | Polar Stratospheric Clouds: Satellite Observations, Processes, and Role in Ozone Depletion. Reviews of Geophysics, 2021, 59, e2020RG000702. | 23.0 | 49 |
| 17 | Large and increasing methane emissions from eastern Amazonia derived from satellite data, 2010~2018. Atmospheric Chemistry and Physics, 2021, 21, 10643-10669. | 4.9 | 13 |
| 18 | Large Methane Emissions From the Pantanal During Rising Water Levels Revealed by Regularly Measured Lower Troposphere CH ₄ Profiles. Global Biogeochemical Cycles, 2021, 35, e2021GB006964. | 4.9 | 8 |

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|----|---|------|-----------|
| 19 | Stratospheric fluorine as a tracer of circulation changes: comparison between infrared remote sensing observations and simulations with five modern reanalyses. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD034995. | 3.3 | 8 |
| 20 | Large Enhancements in Southern Hemisphere Satellite-Observed Trace Gases Due to the 2019/2020 Australian Wildfires. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD034892. | 3.3 | 8 |
| 21 | Organic and inorganic bromine measurements around the extratropical tropopause and lowermost stratosphere: insights into the transport pathways and total bromine. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 15375-15407. | 4.9 | 6 |
| 22 | Cloud-scale modelling of the impact of deep convection on the fate of oceanic bromoform in the troposphere: a case study over the west coast of Borneo. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 16955-16984. | 4.9 | 1 |
| 23 | ML-TOMCAT: machine-learning-based satellite-corrected global stratospheric ozone profile data set from a chemical transport model. <i>Earth System Science Data</i> , 2021, 13, 5711-5729. | 9.9 | 5 |
| 24 | Substantial Increases in Eastern Amazon and Cerrado Biomass Burning-Sourced Tropospheric Ozone. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL084143. | 4.0 | 16 |
| 25 | A comprehensive quantification of global nitrous oxide sources and sinks. <i>Nature</i> , 2020, 586, 248-256. | 27.8 | 814 |
| 26 | Renewed and emerging concerns over the production and emission of ozone-depleting substances. <i>Nature Reviews Earth & Environment</i> , 2020, 1, 251-263. | 29.7 | 32 |
| 27 | Description and Evaluation of the specified-dynamics experiment in the Chemistry-Climate Model Initiative. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 3809-3840. | 4.9 | 16 |
| 28 | Description and evaluation of the UKCA stratosphere-troposphere chemistry scheme (StratTrop vn) Tj ETQq0 0 0 rgBT /Overlock 10 T | 3.6 | 109 |
| 29 | Modelling the potential impacts of the recent, unexpected increase in CFC-11 emissions on total column ozone recovery. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 7153-7166. | 4.9 | 10 |
| 30 | Quantifying the transboundary contribution of nitrogen oxides to UK air quality. <i>Atmospheric Science Letters</i> , 2020, 21, e955. | 1.9 | 2 |
| 31 | A Synthesis Inversion to Constrain Global Emissions of Two Very Short Lived Chlorocarbons: Dichloromethane, and Perchloroethylene. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031818. | 3.3 | 18 |
| 32 | Tropospheric ozone radiative forcing uncertainty due to pre-industrial fire and biogenic emissions. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 10937-10951. | 4.9 | 15 |
| 33 | Gravitational separation of Ar ³⁶ and age of air in the lowermost stratosphere in airborne observations and a chemical transport model. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 12391-12408. | 4.9 | 9 |
| 34 | Evaluating the simulated radiative forcings, aerosol properties, and stratospheric warmings from the 1963 Mt Agung, 1982 El Chich ³ⁿ , and 1991 Mt Pinatubo volcanic aerosol clouds. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 13627-13654. | 4.9 | 22 |
| 35 | Exploring constraints on a wetland methane emission ensemble (WetCHARTs) using GOSAT observations. <i>Biogeosciences</i> , 2020, 17, 5669-5691. | 3.3 | 16 |
| 36 | Decomposing the response of the stratospheric Brewer-Dobson circulation to an abrupt quadrupling in CO ₂ . <i>Weather and Climate Dynamics</i> , 2020, 1, 155-174. | 3.5 | 6 |

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|----|--|------|-----------|
| 37 | Impact of the June 2018 Saddleworth Moor wildfires on air quality in northern England. Environmental Research Communications, 2020, 2, 031001. | 2.3 | 5 |
| 38 | Analysis and attribution of total column ozone changes over the Tibetan Plateau during 1979â€“2017. Atmospheric Chemistry and Physics, 2020, 20, 8627-8639. | 4.9 | 15 |
| 39 | Impact on air quality and health due to the Saddleworth Moor fire in northern England. Environmental Research Letters, 2020, 15, 074018. | 5.2 | 8 |
| 40 | Ultraviolet Radiation modelling using output from the Chemistry Climate Model Initiative. , 2019, 19, 10087-10110. | | 5 |
| 41 | Zonally asymmetric trends of winter total column ozone in the northern middle latitudes. Climate Dynamics, 2019, 52, 4483-4500. | 3.8 | 19 |
| 42 | Challenges for the recovery of the ozone layer. Nature Geoscience, 2019, 12, 592-596. | 12.9 | 50 |
| 43 | Impact of El NiÃ±oâ€“Southern Oscillation on the interannual variability of methane and tropospheric ozone. Atmospheric Chemistry and Physics, 2019, 19, 8669-8686. | 4.9 | 33 |
| 44 | Interannual Variations in Lower Stratospheric Ozone During the Period 1984â€“2016. Journal of Geophysical Research D: Atmospheres, 2019, 124, 8225-8241. | 3.3 | 10 |
| 45 | Clear-sky ultraviolet radiation modelling using output from the Chemistry Climate Model Initiative. Atmospheric Chemistry and Physics, 2019, 19, 10087-10110. | 4.9 | 22 |
| 46 | Recent Trends in Stratospheric Chlorine From Very Shortâ€“Lived Substances. Journal of Geophysical Research D: Atmospheres, 2019, 124, 2318-2335. | 3.3 | 34 |
| 47 | Stratospheric ozone loss in the Arctic winters between 2005 and 2013 derived with ACE-FTS measurements. Atmospheric Chemistry and Physics, 2019, 19, 577-601. | 4.9 | 10 |
| 48 | Dynamically controlled ozone decline in the tropical mid-stratosphere observed by SCIAMACHY. Atmospheric Chemistry and Physics, 2019, 19, 767-783. | 4.9 | 18 |
| 49 | On the Regional and Seasonal Ozone Depletion Potential of Chlorinated Very Shortâ€“Lived Substances. Geophysical Research Letters, 2019, 46, 5489-5498. | 4.0 | 21 |
| 50 | Attribution of the Hemispheric Asymmetries in Trends of Stratospheric Trace Gases Inferred From Microwave Limb Sounder (MLS) Measurements. Journal of Geophysical Research D: Atmospheres, 2019, 124, 6283-6293. | 3.3 | 12 |
| 51 | Large Impacts, Past and Future, of Ozoneâ€“Depleting Substances on Brewerâ€“Dobson Circulation Trends: A Multimodel Assessment. Journal of Geophysical Research D: Atmospheres, 2019, 124, 6669-6680. | 3.3 | 28 |
| 52 | High resolution satellite observations give new view of UK air quality. Weather, 2019, 74, 316-320. | 0.7 | 5 |
| 53 | Phosgene in the Upper Troposphere and Lower Stratosphere: A Marker for Product Gas Injection Due to Chlorineâ€“Containing Very Short Lived Substances. Geophysical Research Letters, 2019, 46, 1032-1039. | 4.0 | 10 |
| 54 | The effect of atmospheric nudging on the stratospheric residual circulation in chemistryâ€“climate models. Atmospheric Chemistry and Physics, 2019, 19, 11559-11586. | 4.9 | 27 |

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|----|--|------|-----------|
| 55 | Acceleration of global N ₂ O emissions seen from two decades of atmospheric inversion. <i>Nature Climate Change</i> , 2019, 9, 993-998. | 18.8 | 229 |
| 56 | Delay in recovery of the Antarctic ozone hole from unexpected CFC-11 emissions. <i>Nature Communications</i> , 2019, 10, 5781. | 12.8 | 58 |
| 57 | Stratospheric ozone loss over the Eurasian continent induced by the polar vortex shift. <i>Nature Communications</i> , 2018, 9, 206. | 12.8 | 69 |
| 58 | Impact on short-lived climate forcers increases projected warming due to deforestation. <i>Nature Communications</i> , 2018, 9, 157. | 12.8 | 86 |
| 59 | Ozone sensitivity to varying greenhouse gases and ozone-depleting substances in CCMI-1 simulations. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 1091-1114. | 4.9 | 56 |
| 60 | Heterogeneous reaction of HO ₂ with airborne TiO ₂ particles and its implication for climate change mitigation strategies. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 327-338. | 4.9 | 12 |
| 61 | A refined method for calculating equivalent effective stratospheric chlorine. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 601-619. | 4.9 | 22 |
| 62 | Attribution of recent increases in atmospheric methane through 3-D inverse modelling. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 18149-18168. | 4.9 | 51 |
| 63 | Influence of the wintertime North Atlantic Oscillation on European tropospheric composition: an observational and modelling study. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 8389-8408. | 4.9 | 6 |
| 64 | On the discrepancy of HCl processing in the core of the wintertime polar vortices. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 8647-8666. | 4.9 | 26 |
| 65 | Widespread changes in UK air quality observed from space. <i>Atmospheric Science Letters</i> , 2018, 19, e817. | 1.9 | 19 |
| 66 | Age of air as a diagnostic for transport timescales in global models. <i>Geoscientific Model Development</i> , 2018, 11, 3109-3130. | 3.6 | 44 |
| 67 | Tropical land carbon cycle responses to 2015/16 El Niño as recorded by atmospheric greenhouse gas and remote sensing data. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018, 373, 20170302. | 4.0 | 37 |
| 68 | Recent Arctic ozone depletion: Is there an impact of climate change?. <i>Comptes Rendus - Geoscience</i> , 2018, 350, 347-353. | 1.2 | 22 |
| 69 | On the Cause of Recent Variations in Lower Stratospheric Ozone. <i>Geophysical Research Letters</i> , 2018, 45, 5718-5726. | 4.0 | 87 |
| 70 | A measurement-based verification framework for UK greenhouse gas emissions: an overview of the Greenhouse gAs Uk and Global Emissions (GAUGE) project. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 11753-11777. | 4.9 | 29 |
| 71 | Stratospheric Injection of Brominated Very Short-Lived Substances: Aircraft Observations in the Western Pacific and Representation in Global Models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 5690-5719. | 3.3 | 36 |
| 72 | Tropospheric jet response to Antarctic ozone depletion: An update with Chemistry-Climate Model Initiative (CCMI) models. <i>Environmental Research Letters</i> , 2018, 13, 054024. | 5.2 | 38 |

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|----|--|------|-----------|
| 73 | An Explanation for the Nitrous Oxide Layer Observed in the Mesopause Region. Geophysical Research Letters, 2018, 45, 7818-7827. | 4.0 | 5 |
| 74 | Estimates of ozone return dates from Chemistry-Climate Model Initiative simulations. Atmospheric Chemistry and Physics, 2018, 18, 8409-8438. | 4.9 | 128 |
| 75 | Evaluating year-to-year anomalies in tropical wetland methane emissions using satellite CH ₄ observations. Remote Sensing of Environment, 2018, 211, 261-275. | 11.0 | 55 |
| 76 | Revisiting the Mystery of Recent Stratospheric Temperature Trends. Geophysical Research Letters, 2018, 45, 9919-9933. | 4.0 | 51 |
| 77 | An updated version of a gap-free monthly mean zonal mean ozone database. Earth System Science Data, 2018, 10, 1473-1490. | 9.9 | 18 |
| 78 | Quantifying the causes of differences in tropospheric OH within global models. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1983-2007. | 3.3 | 27 |
| 79 | Influence of the Arctic Oscillation on the Vertical Distribution of Wintertime Ozone in the Stratosphere and Upper Troposphere over the Northern Hemisphere. Journal of Climate, 2017, 30, 2905-2919. | 3.2 | 14 |
| 80 | Impact on short-lived climate forcers (SLCFs) from a realistic land-use change scenario via changes in biogenic emissions. Faraday Discussions, 2017, 200, 101-120. | 3.2 | 7 |
| 81 | Detecting recovery of the stratospheric ozone layer. Nature, 2017, 549, 211-218. | 27.8 | 182 |
| 82 | Deriving Global OH Abundance and Atmospheric Lifetimes for Long-Lived Gases: A Search for CH ₃ CCl ₃ Alternatives. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,914. | 3.3 | 26 |
| 83 | The increasing threat to stratospheric ozone from dichloromethane. Nature Communications, 2017, 8, 15962. | 12.8 | 147 |
| 84 | Probing the subtropical lowermost stratosphere and the tropical upper troposphere and tropopause layer for inorganic bromine. Atmospheric Chemistry and Physics, 2017, 17, 1161-1186. | 4.9 | 25 |
| 85 | The relationship between lower-stratospheric ozone at southern high latitudes and sea surface temperature in the East Asian marginal seas in austral spring. Atmospheric Chemistry and Physics, 2017, 17, 6705-6722. | 4.9 | 11 |
| 86 | Determination of the atmospheric lifetime and global warming potential of sulfur hexafluoride using a three-dimensional model. Atmospheric Chemistry and Physics, 2017, 17, 883-898. | 4.9 | 49 |
| 87 | A new Differential Optical Absorption Spectroscopy instrument to study atmospheric chemistry from a high-altitude unmanned aircraft. Atmospheric Measurement Techniques, 2017, 10, 1017-1042. | 3.1 | 20 |
| 88 | Review of the global models used within phase 1 of the Chemistry–Climate Model Initiative (CCMI). Geoscientific Model Development, 2017, 10, 639-671. | 3.6 | 277 |
| 89 | The TOMCAT global chemical transport model v1.6: description of chemical mechanism and model evaluation. Geoscientific Model Development, 2017, 10, 3025-3057. | 3.6 | 35 |
| 90 | Extending methane profiles from aircraft into the stratosphere for satellite total column validation using the ECMWF C-IFS and TOMCAT/SLIMCAT 3-D model. Atmospheric Chemistry and Physics, 2017, 17, 6663-6678. | 4.9 | 6 |

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| 91 | The impact of synoptic weather on UK surface ozone and implications for premature mortality. Environmental Research Letters, 2016, 11, 124004. | 5.2 | 48 |
| 92 | Neutral coupled chemistry (Sodankylä Ion Chemistry, TJ ETQ000rgBT /Overlock WACCM-rSIC. Geoscientific Model Development, 2016, 9, 3123-3136. | 3.6 | 16 |
| 93 | A global model of tropospheric chlorine chemistry: Organic versus inorganic sources and impact on methane oxidation. Journal of Geophysical Research D: Atmospheres, 2016, 121, 14,271. | 3.3 | 86 |
| 94 | Evaluation of simulated photolysis rates and their response to solar irradiance variability. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6066-6084. | 3.3 | 27 |
| 95 | Contribution of regional sources to atmospheric methane over the Amazon Basin in 2010 and 2011. Global Biogeochemical Cycles, 2016, 30, 400-420. | 4.9 | 42 |
| 96 | Solar cycle response and long-term trends in the mesospheric metal layers. Journal of Geophysical Research: Space Physics, 2016, 121, 7153-7165. | 2.4 | 15 |
| 97 | On the ambiguous nature of the 11% year solar cycle signal in upper stratospheric ozone. Geophysical Research Letters, 2016, 43, 7241-7249. | 4.0 | 43 |
| 98 | Evaluation of the inter-annual variability of stratospheric chemical composition in chemistry-climate models using ground-based multi species time series. Journal of Atmospheric and Solar-Terrestrial Physics, 2016, 145, 61-84. | 1.6 | 6 |
| 99 | CH ₄ concentrations over the Amazon from GOSAT consistent with in situ vertical profile data. Journal of Geophysical Research D: Atmospheres, 2016, 121, 11,006. | 3.3 | 18 |
| 100 | Role of regional wetland emissions in atmospheric methane variability. Geophysical Research Letters, 2016, 43, 11,433. | 4.0 | 37 |
| 101 | Persistent shift of the Arctic polar vortex towards the Eurasian continent in recent decades. Nature Climate Change, 2016, 6, 1094-1099. | 18.8 | 207 |
| 102 | Intercomparison and evaluation of satellite peroxyacetyl nitrate observations in the upper troposphere–lower stratosphere. Atmospheric Chemistry and Physics, 2016, 16, 13541-13559. | 4.9 | 15 |
| 103 | Role of OH variability in the stalling of the global atmospheric CH ₄ growth rate from 1999 to 2006. Atmospheric Chemistry and Physics, 2016, 16, 7943-7956. | 4.9 | 68 |
| 104 | Satellite observations of stratospheric hydrogen fluoride and comparisons with SLIMCAT calculations. Atmospheric Chemistry and Physics, 2016, 16, 10501-10519. | 4.9 | 14 |
| 105 | Atmospheric lifetimes, infrared absorption spectra, radiative forcings and global warming potentials of NF ₃ and CF ₃ CF ₂ Cl (CFC-115). Atmospheric Chemistry and Physics, 2016, 16, 11451-11463. | 4.9 | 16 |
| 106 | Model sensitivity studies of the decrease in atmospheric carbon tetrachloride. Atmospheric Chemistry and Physics, 2016, 16, 15741-15754. | 4.9 | 5 |
| 107 | The near-global mesospheric potassium layer: Observations and modeling. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7975-7987. | 3.3 | 15 |
| 108 | Growth in stratospheric chlorine from short-lived chemicals not controlled by the Montreal Protocol. Geophysical Research Letters, 2015, 42, 4573-4580. | 4.0 | 42 |

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| 109 | Multi-model study of chemical and physical controls on transport of anthropogenic and biomass burning pollution to the Arctic. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 3575-3603. | 4.9 | 83 |
| 110 | Evaluation of a regional air quality model using satellite column NO ₂ : treatment of observation errors and model boundary conditions and emissions. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 5611-5626. | 4.9 | 20 |
| 111 | The influence of synoptic weather regimes on UK air quality: regional model studies of tropospheric column NO ₂ . <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 11201-11215. | 4.9 | 20 |
| 112 | Satellite constraint on the tropospheric ozone radiative effect. <i>Geophysical Research Letters</i> , 2015, 42, 5074-5081. | 4.0 | 39 |
| 113 | Diurnal variation of the potassium layer in the upper atmosphere. <i>Geophysical Research Letters</i> , 2015, 42, 3619-3626. | 4.0 | 10 |
| 114 | Quantifying the ozone and ultraviolet benefits already achieved by the Montreal Protocol. <i>Nature Communications</i> , 2015, 6, 7233. | 12.8 | 99 |
| 115 | Efficiency of short-lived halogens at influencing climate through depletion of stratospheric ozone. <i>Nature Geoscience</i> , 2015, 8, 186-190. | 12.9 | 146 |
| 116 | Revisiting the hemispheric asymmetry in midlatitude ozone changes following the Mount Pinatubo eruption: A 3D model study. <i>Geophysical Research Letters</i> , 2015, 42, 3038-3047. | 4.0 | 47 |
| 117 | Reaction between CH ₃ O ₂ and BrO Radicals: A New Source of Upper Troposphere Lower Stratosphere Hydroxyl Radicals. <i>Journal of Physical Chemistry A</i> , 2015, 119, 4618-4632. | 2.5 | 18 |
| 118 | Suppression of <i>CCN</i> formation by bromine chemistry in the remote marine atmosphere. <i>Atmospheric Science Letters</i> , 2015, 16, 141-147. | 1.9 | 4 |
| 119 | First global observations of the mesospheric potassium layer. <i>Geophysical Research Letters</i> , 2014, 41, 5653-5661. | 4.0 | 17 |
| 120 | Development of a variational flux inversion system (INVICAT v1.0) using the TOMCAT chemical transport model. <i>Geoscientific Model Development</i> , 2014, 7, 2485-2500. | 3.6 | 32 |
| 121 | The influence of synoptic weather regimes on <i>UK</i> air quality: analysis of satellite column <i>NO₂</i> . <i>Atmospheric Science Letters</i> , 2014, 15, 211-217. | 1.9 | 41 |
| 122 | Recent Northern Hemisphere stratospheric HCl increase due to atmospheric circulation changes. <i>Nature</i> , 2014, 515, 104-107. | 27.8 | 110 |
| 123 | Multimodel estimates of atmospheric lifetimes of long-lived ozone-depleting substances: Present and future. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 2555-2573. | 3.3 | 42 |
| 124 | Global stratospheric fluorine inventory for 2004–2009 from Atmospheric Chemistry Experiment Fourier Transform Spectrometer (ACE-FTS) measurements and SLIMCAT model simulations. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 267-282. | 4.9 | 15 |
| 125 | Aerosol microphysics simulations of the Mt.~Pinatubo eruption with the UM-UKCA composition-climate model. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 11221-11246. | 4.9 | 62 |
| 126 | Comparison of the HadGEM2 climate-chemistry model against in situ and SCIAMACHY atmospheric methane data. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 13257-13280. | 4.9 | 29 |

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| 127 | TransCom N ₂ O model inter-comparison â€œ Part 1: Assessing the influence of transport and surface fluxes on tropospheric N ₂ O variability. Atmospheric Chemistry and Physics, 2014, 14, 4349-4368. | 4.9 | 34 |
| 128 | Constraining the N ₂ O<sub>5</sub> UV absorption cross section from spectroscopic trace gas measurements in the tropical mid-stratosphere. Atmospheric Chemistry and Physics, 2014, 14, 9555-9566. | 4.9 | 4 |
| 129 | Satellite observations of stratospheric carbonyl fluoride. Atmospheric Chemistry and Physics, 2014, 14, 11915-11933. | 4.9 | 13 |
| 130 | Resolving the strange behavior of extraterrestrial potassium in the upper atmosphere. Geophysical Research Letters, 2014, 41, 4753-4760. | 4.0 | 43 |
| 131 | Direct and indirect effects of solar variations on stratospheric ozone and temperature. Science Bulletin, 2013, 58, 3840-3846. | 1.7 | 2 |
| 132 | Improvements in the stratospheric transport achieved by a chemistry transport model with ECMWF (re)analyses: identifying effects and remaining challenges. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 654-673. | 2.7 | 41 |
| 133 | Plutoniumâ€³38 observations as a test of modeled transport and surface deposition of meteoric smoke particles. Geophysical Research Letters, 2013, 40, 4454-4458. | 4.0 | 29 |
| 134 | On the uses of a new linear scheme for stratospheric methane in global models: water source, transport tracer and radiative forcing. Atmospheric Chemistry and Physics, 2013, 13, 9641-9660. | 4.9 | 17 |
| 135 | Impact of transport model errors on the global and regional methane emissions estimated by inverse modelling. Atmospheric Chemistry and Physics, 2013, 13, 9917-9937. | 4.9 | 68 |
| 136 | Stratospheric O<sub>3</sub> changes during 2001â€³2010: the small role of solar flux variations in a chemical transport model. Atmospheric Chemistry and Physics, 2013, 13, 10113-10123. | 4.9 | 25 |
| 137 | Off-line algorithm for calculation of vertical tracer transport in the troposphere due to deep convection. Atmospheric Chemistry and Physics, 2013, 13, 1093-1114. | 4.9 | 27 |
| 138 | Evaluating global emission inventories of biogenic bromocarbons. Atmospheric Chemistry and Physics, 2013, 13, 11819-11838. | 4.9 | 66 |
| 139 | The Mediterranean summertime ozone maximum: global emission sensitivities and radiative impacts. Atmospheric Chemistry and Physics, 2013, 13, 2331-2345. | 4.9 | 93 |
| 140 | Atmospheric test of the J(BrONO<sub>2</sub>)/<i>k</i><sub>BrO</sub>+NO<sub>y</sub> ratio: implications for total stratospheric Br<sub>y</sub> and bromine-mediated ozone loss. Atmospheric Chemistry and Physics, 2013, 13, 6263-6274. | 4.9 | 21 |
| 141 | Climate impact of stratospheric ozone recovery. Geophysical Research Letters, 2013, 40, 2796-2800. | 4.0 | 27 |
| 142 | A global atmospheric model of meteoric iron. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9456-9474. | 3.3 | 105 |
| 143 | TransCom model simulations of methane: Comparison of vertical profiles with aircraft measurements. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3891-3904. | 3.3 | 24 |
| 144 | New Aura Microwave Limb Sounder observations of BrO and implications for Br<sub>y</sub>. Atmospheric Measurement Techniques, 2012, 5, 1741-1751. | 3.1 | 15 |

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|-----|--|-----|-----------|
| 145 | Interactions of meteoric smoke particles with sulphuric acid in the Earth's stratosphere. Atmospheric Chemistry and Physics, 2012, 12, 4387-4398. | 4.9 | 45 |
| 146 | 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. | 4.9 | 101 |
| 147 | Observed and simulated time evolution of HCl, ClONO ₂ , and HF total column abundances. Atmospheric Chemistry and Physics, 2012, 12, 3527-3556. | 4.9 | 72 |
| 148 | Unusually low ozone, HCl, and HNO ₃ column measurements at Eureka, Canada during winter/spring 2011. Atmospheric Chemistry and Physics, 2012, 12, 3821-3835. | 4.9 | 34 |
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