Maarten C Krol

List of Publications by Year
in descending order

181 papers	17,326 citations	23544 58 h-index	19169 118 g-index
227 all docs	227 docs citations	227 times ranked	12762 citing authors

#	Article	IF	Citations
1	Analysis and quantification of the diversities of aerosol life cycles within AeroCom. Atmospheric Chemistry and Physics, 2006, 6, 1777-1813.	1.9	1,202
2	An atmospheric perspective on North American carbon dioxide exchange: CarbonTracker. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18925-18930.	3.3	895
3	Nitrogen and sulfur deposition on regional and global scales: A multimodel evaluation. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	1.9	846
4	Global dust model intercomparison in AeroCom phase I. Atmospheric Chemistry and Physics, 2011, 11, 7781-7816.	1.9	839
5	Multimodel ensemble simulations of present-day and near-future tropospheric ozone. Journal of Geophysical Research, 2006, 111, .	3.3	743
6	An AeroCom initial assessment â€“ optical properties in aerosol component modules of global models. Atmospheric Chemistry and Physics, 2006, 6, 1815-1834.	1.9	697
7	Evaluation of black carbon estimations in global aerosol models. Atmospheric Chemistry and Physics, 2009, 9, 9001-9026.	1.9	585
8	The global impact of ozone on agricultural crop yields under current and future air quality legislation. Atmospheric Environment, 2009, 43, 604-618.	1.9	563
9	The two-way nested global chemistry-transport zoom model TM5: algorithm and applications. Atmospheric Chemistry and Physics, 2005, 5, 417-432.	1.9	490
10	The Global Atmospheric Environment for the Next Generation. Environmental Science & Technology, 2006, 40, 3586-3594.	4.6	338
11	TransCom model simulations of CH₄ and related species: linking transport, surface flux and chemical loss with CH₄ variability in the troposphere and lower stratosphere. Atmospheric Chemistry and Physics, 2011, 11, 12813-12837.	1.9	331
12	Small Interannual Variability of Global Atmospheric Hydroxyl. Science, 2011, 331, 67-69.	6.0	306
13	Inverse modeling of global and regional CH₄ emissions using SCIAMACHY satellite retrievals. Journal of Geophysical Research, 2009, 114, .	3.3	280
14	Satellite chartography of atmospheric methane from SCIAMACHY on board ENVISAT: 2. Evaluation based on inverse model simulations. Journal of Geophysical Research, 2007, 112, .	3.3	263
15	Evaluation of long-term ozone simulations from seven regional air quality models and their ensemble. Atmospheric Environment, 2007, 41, 2083-2097.	1.9	258
16	Multimodel simulations of carbon monoxide: Comparison with observations and projected near-future changes. Journal of Geophysical Research, 2006, 111, .	3.3	254
17	The global chemistry transport model TM5: description and evaluation of the tropospheric chemistry version 3.0. Geoscientific Model Development, 2010, 3, 445-473.	1.3	251
18	The effect of harmonized emissions on aerosol properties in global models â€“ an AeroCom experiment. Atmospheric Chemistry and Physics, 2007, 7, 4489-4501.	1.9	228

#	Article	IF	Citations
19	Atmospheric CH₄ in the first decade of the 21st century: Inverse modeling analysis using SCIAMACHY satellite retrievals and NOAA surface measurements. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7350-7369.	1.2	226
20	Seven years of recent European net terrestrial carbon dioxide exchange constrained by atmospheric observations. Global Change Biology, 2010, 16, 1317-1337.	4.2	223
21	An ensemble data assimilation system to estimate CO2surface fluxes from atmospheric trace gas observations. Journal of Geophysical Research, 2005, 110, .	3.3	177
22	On the role of hydroxyl radicals in the self-cleansing capacity of the troposphere. Atmospheric Chemistry and Physics, 2004, 4, 2337-2344.	1.9	176
23	Sources of uncertainties in modelling black carbon at the global scale. Atmospheric Chemistry and Physics, 2010, 10, 2595-2611.	1.9	171
24	Application of the CALIOP layer product to evaluate the vertical distribution of aerosols estimated by global models: AeroCom phase I results. Journal of Geophysical Research, 2012, 117, .	3.3	170
25	Change in global aerosol composition since preindustrial times. Atmospheric Chemistry and Physics, 2006, 6, 5143-5162.	1.9	168
26	Global OH trend inferred from methylchloroform measurements. Journal of Geophysical Research, 1998, 103, 10697-10711.	3.3	166
27	Four-dimensional variational data assimilation for inverse modelling of atmospheric methane emissions: method and comparison with synthesis inversion. Atmospheric Chemistry and Physics, 2008, 8, 6341-6353.	1.9	162
28	Stability of tropospheric hydroxyl chemistry. Journal of Geophysical Research, 2002, 107, ACH 17-1-ACH 17-11.	3.3	158
29	Inverse modelling of national and European CH₄ emissions using the atmospheric zoom model TM5. Atmospheric Chemistry and Physics, 2005, 5, 2431-2460.	1.9	143
30	TransCom model simulations of hourly atmospheric CO₂: Experimental overview and diurnal cycle results for 2002. Global Biogeochemical Cycles, 2008, 22, .	1.9	142
31	Structural uncertainty in air mass factor calculation for NO₂ and HCHO satellite retrievals. Atmospheric Measurement Techniques, 2017, 10, 759-782.	1.2	133
32	Multi-model ensemble simulations of tropospheric NO₂ compared with GOME retrievals for the year 2000. Atmospheric Chemistry and Physics, 2006, 6, 2943-2979.	1.9	127
33	Observational evidence for interhemispheric hydroxyl-radical parity. Nature, 2014, 513, 219-223.	13.7	121
34	Inverse modeling of European CH₄ emissions 2001â€“2006. Journal of Geophysical Research, 2010, 115, .	3.3	120
35	TransCom model simulations of hourly atmospheric CO₂: Analysis of synopticâ€scale variations for the period 2002â€“2003. Global Biogeochemical Cycles, 2008, 22, .	1.9	119
36	Natural and anthropogenic variations in methane sources during the past two millennia. Nature, 2012, 490, 85-88.	13.7	115

#	Article	IF	Citations
37	The contribution of ocean-leaving DMS to the global atmospheric burdens of DMS, MSA, SO2, and NSS SO4=. Global Biogeochemical Cycles, 2003, 17, n/a-n/a.	1.9	114
38	Can the variability in tropospheric OH be deduced from measurements of 1,1,1-trichloroethane (methyl) Tj ETQq0 0 0 rgBT /Overlock 10	3.3	110
39	Interannual variability and trend of CH4lifetime as a measure for OH changes in the 1979â€“1993 time period. Journal of Geophysical Research, 2003, 108, .	3.3	108
40	Global soil-biogenic NOxemissions and the role of canopy processes. Journal of Geophysical Research, 2002, 107, ACH 9-1.	3.3	107
41	A multi-year methane inversion using SCIAMACHY, accounting for systematic errors using TCCON measurements. Atmospheric Chemistry and Physics, 2014, 14, 3991-4012.	1.9	106
42	Quantification of nitrogen oxides emissions from build-up of pollution over Paris with TROPOMI. Scientific Reports, 2019, 9, 20033.	1.6	104
43	Atmospheric constraints on global emissions of methane from plants. Geophysical Research Letters, 2006, 33, .	1.5	102
44	Continuing emissions of methyl chloroform from Europe. Nature, 2003, 421, 131-135.	13.7	100
45	The sensitivity of aerosol in Europe to two different emission inventories and temporal distribution of emissions. Atmospheric Chemistry and Physics, 2006, 6, 4287-4309.	1.9	100
46	Effects of turbulence and heterogeneous emissions on photochemically active species in the convective boundary layer. Journal of Geophysical Research, 2000, 105, 6871-6884.	3.3	94
47	Gas/aerosol partitioning 2. Global modeling results. Journal of Geophysical Research, 2002, 107, ACH 17-1.	3.3	94
48	Fourâ€dimensional variational data assimilation for inverse modeling of atmospheric methane emissions: Analysis of SCIAMACHY observations. Journal of Geophysical Research, 2008, 113, .	3.3	92
49	Skill and uncertainty of a regional air quality model ensemble. Atmospheric Environment, 2009, 43, 4822-4832.	1.9	87
50	Importance of fossil fuel emission uncertainties over Europe for CO₂ modeling: model intercomparison. Atmospheric Chemistry and Physics, 2011, 11, 6607-6622.	1.9	87
51	Trends and inter-annual variability of methane emissions derived from 1979-1993 global CTM simulations. Atmospheric Chemistry and Physics, 2003, 3, 73-88.	1.9	81
52	Evidence for long-range transport of carbon monoxide in the Southern Hemisphere from SCIAMACHY observations. Geophysical Research Letters, 2006, 33, .	1.5	77
53	The CarbonTracker Data Assimilation Shell (CTDAS) v1.0: implementation and global carbon balance 2001â€“2015. Geoscientific Model Development, 2017, 10, 2785-2800.	1.3	77
54	Global inverse modeling of CH₄ sources and sinks: an overview of methods. Atmospheric Chemistry and Physics, 2017, 17, 235-256.	1.9	75

#	Article	IF	Citations
55	Toward regional-scale modeling using the two-way nested global model TM5: Characterization of transport using SF6. Journal of Geophysical Research, 2004, 109, .	3.3	73
56	Atmosphere-biosphere trace gas exchanges simulated with a single-column model. Journal of Geophysical Research, 2002, 107, ACH 8-1.	3.3	70
57	Response of the Amazon carbon balance to the 2010 drought derived with CarbonTracker South America. Global Biogeochemical Cycles, 2015, 29, 1092-1108.	1.9	70
58	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
59	On the segregation of chemical species in a clear boundary layer over heterogeneous land surfaces. Atmospheric Chemistry and Physics, 2011, 11, 10681-10704.	1.9	67
60	How much CO was emitted by the 2010 fires around Moscow?. Atmospheric Chemistry and Physics, 2013, 13, 4737-4747.	1.9	66
61	Modeling the surfaceâ€"atmosphere exchange of ammonia. Atmospheric Environment, 2010, 44, 945-957.	1.9	65
62	Reduced carbon uptake during the 2010 Northern Hemisphere summer from GOSAT. Geophysical Research Letters, 2013, 40, 2378-2383.	1.5	65
63	Inverse modelling of European N₂O emissions: assimilating observations from different networks. Atmospheric Chemistry and Physics, 2011, 11, 2381-2398.	1.9	63
64	Modeling energy efficiency to improve air quality and health effects of Chinaâ€™s cement industry. Applied Energy, 2016, 184, 574-593.	5.1	63
65	Reviews and syntheses: the GESAMP atmospheric iron deposition model intercomparison study. Biogeosciences, 2018, 15, 6659-6684.	1.3	63
66	Simulation of tropospheric chemistry and aerosols with the climate model EC-Earth. Geoscientific Model Development, 2014, 7, 2435-2475.	1.3	62
67	Comparison of modeled versus measured MSA:nss SO4=ratios: A global analysis. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	1.9	59
68	Impacts of Aerosol Shortwave Radiation Absorption on the Dynamics of an Idealized Convective Atmospheric Boundary Layer. Boundary-Layer Meteorology, 2013, 148, 31-49.	1.2	58
69	Implications of variations in photodissociation rates for global tropospheric chemistry. Atmospheric Environment, 1997, 31, 1257-1273.	1.9	57
70	The European aerosol budget in 2006. Atmospheric Chemistry and Physics, 2011, 11, 1117-1139.	1.9	56
71	Photolysis frequency of NO2: Measurement and modeling during the International Photolysis Frequency Measurement and Modeling Intercomparison (IPMMI). Journal of Geophysical Research, 2003, 108, .	3.3	52
72	Optimizing global CO emission estimates using a four-dimensional variational data assimilation system and surface network observations. Atmospheric Chemistry and Physics, 2011, 11, 4705-4723.	1.9	52

#	Article	IF	Citations
73	On the use of mass-conserving wind fields in chemistry-transport models. Atmospheric Chemistry and Physics, 2003, 3, 447-457.	1.9	51
74	The anomeric effect:Ab-initio studies on molecules of the type X?CH2?O?CH3. Journal of Computational Chemistry, 1990, 11, 765-790.	1.5	50
75	Origin of anthropogenic hydrocarbons and halocarbons measured in the summertime european outflow (on Crete in 2001). Atmospheric Chemistry and Physics, 2003, 3, 1223-1235.	1.9	49
76	International Photolysis Frequency Measurement and Model Intercomparison (IPMMI): Spectral actinic solar flux measurements and modeling. Journal of Geophysical Research, 2003, 108, .	3.3	47
77	Quantitative analysis of SCIAMACHY carbon monoxide total column measurements. Geophysical Research Letters, 2006, 33, .	1.5	47
78	Modelling the partitioning of ammonium nitrate in the convective boundary layer. Atmospheric Chemistry and Physics, 2012, 12, 3005-3023.	1.9	47
79	Biosphere model simulations of interannual variability in terrestrial ¹³C/¹²C exchange. Global Biogeochemical Cycles, 2013, 27, 637-649.	1.9	46
80	Characterization of a boreal convective boundary layer and its impact on atmospheric chemistry during HUMPPA-COPEC-2010. Atmospheric Chemistry and Physics, 2012, 12, 9335-9353.	1.9	45
81	Aerosols in the convective boundary layer: Shortwave radiation effects on the coupled landâ€atmosphere system. Journal of Geophysical Research D: Atmospheres, 2014, 119, 5845-5863.	1.2	45
82	Regional atmospheric CO₂ inversion reveals seasonal and geographic differences in Amazon net biome exchange. Global Change Biology, 2016, 22, 3427-3443.	4.2	45
83	The seasonal variation of the CO₂ flux over Tropical Asia estimated from GOSAT, CONTRAIL, and IASI. Geophysical Research Letters, 2014, 41, 1809-1815.	1.5	44
84	Age of air as a diagnostic for transport timescales in global models. Geoscientific Model Development, 2018, 11, 3109-3130.	1.3	44
85	Enhanced methane emissions from tropical wetlands during the 2011 La NiÃ±a. Scientific Reports, 2017, 7, 45759.	1.6	41
86	Scanning Imaging Absorption Spectrometer for Atmospheric Chartography carbon monoxide total columns: Statistical evaluation and comparison with chemistry transport model results. Journal of Geophysical Research, 2007, 112, .	3.3	40
87	What can ¹⁴CO measurements tell us about OH?. Atmospheric Chemistry and Physics, 2008, 8, 5033-5044.	1.9	40
88	Global methane emission estimates for 2000â€“2012 from CarbonTracker Europe-CH₄ v1.0. Geoscientific Model Development, 2017, 10, 1261-1289.	1.3	40
89	Constraints and biases in a tropospheric two-box model of OH. Atmospheric Chemistry and Physics, 2019, 19, 407-424.	1.9	40
90	Inverse modeling of European CH₄ emissions: sensitivity to the observational network. Atmospheric Chemistry and Physics, 2010, 10, 1249-1267.	1.9	39

#	Article	IF	Citations
91	European NO_{<i>x</i>} emissions in WRF-Chem derived from OMI: impacts on summertime surface ozone. Atmospheric Chemistry and Physics, 2019, 19, 11821-11841.	1.9	39
92	Comparing optimized CO emission estimates using MOPITT or NOAA surface network observations. Journal of Geophysical Research, 2012, 117, .	3.3	37
93	Terrestrial cycling of ¹³CO₂ by photosynthesis, respiration, and biomass burning in SiBCASA. Biogeosciences, 2014, 11, 6553-6571.	1.3	37
94	Global modelling of H₂ mixing ratios and isotopic compositions with the TM5 model. Atmospheric Chemistry and Physics, 2011, 11, 7001-7026.	1.9	35
95	Dynamic biomass burning emission factors and their impact on atmospheric CO mixing ratios. Journal of Geophysical Research D: Atmospheres, 2013, 118, 6797-6815.	1.2	34
96	Photolysis frequency of O3to O(1D): Measurements and modeling during the International Photolysis Frequency Measurement and Modeling Intercomparison (IPMMI). Journal of Geophysical Research, 2004, 109, .	3.3	33
97	Chemistry-transport model comparison with ozone observations in the midlatitude lowermost stratosphere. Journal of Geophysical Research, 2001, 106, 17479-17496.	3.3	32
98	Inverse modeling of GOSAT-retrieved ratios of total column CH₄ and CO₂ for 2009 and 2010. Atmospheric Chemistry and Physics, 2016, 16, 5043-5062.	1.9	32
99	Interannual variability of carbon monoxide emission estimates over South America from 2006 to 2010. Journal of Geophysical Research, 2012, 117, .	3.3	31
100	Monitoring emissions from the 2015 Indonesian fires using CO satellite data. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170307.	1.8	31
101	Is regional air quality model diversity representative of uncertainty for ozone simulation?. Geophysical Research Letters, 2006, 33, .	1.5	30
102	A consistent molecular hydrogen isotope chemistry scheme based on an independent bond approximation. Atmospheric Chemistry and Physics, 2009, 9, 8503-8529.	1.9	29
103	Statistical clumped isotope signatures. Scientific Reports, 2016, 6, 31947.	1.6	29
104	Identification of an El NiÃ±o-Southern Oscillation signal in a multiyear global simulation of tropospheric ozone. Journal of Geophysical Research, 2001, 106, 10389-10402.	3.3	28
105	McSCIA: application of the Equivalence Theorem in a Monte Carlo radiative transfer model for spherical shell atmospheres. Atmospheric Chemistry and Physics, 2006, 6, 4823-4842.	1.9	28
106	Inverse modelling of carbonyl sulfide: implementation, evaluation and implications for the global budget. Atmospheric Chemistry and Physics, 2021, 21, 3507-3529.	1.9	28
107	Off-line algorithm for calculation of vertical tracer transport in the troposphere due to deep convection. Atmospheric Chemistry and Physics, 2013, 13, 1093-1114.	1.9	27
108	Reassessing the variability in atmospheric H₂ using the twoâ€way nested TM5 model. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3764-3780.	1.2	26

#	Article	IF	Citations
109	Theoretical investigations on the nature of intramolecular interactions. Molecular Physics, 1988, 65, 513-529.	0.8	25
110	Chemistry-transport modeling of the satellite observed distribution of tropical troposheric ozone. Atmospheric Chemistry and Physics, 2002, 2, 103-120.	1.9	25
111	A conceptual framework to quantify the influence of convective boundary layer development on carbon dioxide mixing ratios. Atmospheric Chemistry and Physics, 2012, 12, 2969-2985.	1.9	25
112	Evaluation of the boundary layer dynamics of the TM5 model over Europe. Geoscientific Model Development, 2016, 9, 3137-3160.	1.3	25
113	What caused the extreme CO concentrations during theÂ2017 high-pollution episode in India?. Atmospheric Chemistry and Physics, 2019, 19, 3433-3445.	1.9	25
114	New Directions: Watching over tropospheric hydroxyl (OH)â˜†. Atmospheric Environment, 2006, 40, 5741-5743.	1.9	24
115	TransCom model simulations of methane: Comparison of vertical profiles with aircraft measurements. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3891-3904.	1.2	24
116	Impact of a future H 2 transportation on atmospheric pollution in Europe. Atmospheric Environment, 2015, 113, 208-222.	1.9	24
117	Global 3â€Đ Simulations of the Triple Oxygen Isotope Signature Î”¹⁷O in Atmospheric CO₂. Journal of Geophysical Research D: Atmospheres, 2019, 124, 8808-8836.	1.2	23
118	Quantifying burning efficiency in megacities using the NO₂â^•CO ratio from the Tropospheric Monitoring Instrument (TROPOMI). Atmospheric Chemistry and Physics, 2020, 20, 10295-10310.	1.9	23
119	The importance of crop growth modeling to interpret the Î”¹⁴CO₂ signature of annual plants. Global Biogeochemical Cycles, 2013, 27, 792-803.	1.9	22
120	Analysis of global methane changes after the 1991 Pinatubo volcanic eruption. Atmospheric Chemistry and Physics, 2013, 13, 2267-2281.	1.9	22
121	On the Computation of Mass Fluxes for Eulerian Transport Models from Spectral Meteorological Fields. Lecture Notes in Computer Science, 2002, , 767-776.	1.0	22
122	Quantification of CO emissions from the city of Madrid using MOPITT satellite retrievals and WRF simulations. Atmospheric Chemistry and Physics, 2017, 17, 14675-14694.	1.9	21
123	Methyl Chloroform Continues to Constrain the Hydroxyl (OH) Variability in the Troposphere. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033862.	1.2	21
124	Evaluation of carbonyl sulfide biosphere exchange in the Simple Biosphere Model (SiB4). Biogeosciences, 2021, 18, 6547-6565.	1.3	21
125	Theoretical investigations of the nature of intramolecular interactions. Molecular Physics, 1986, 59, 209-225.	0.8	18
126	The effect of stratospheric sulfur from Mount Pinatubo on tropospheric oxidizing capacity and methane. Journal of Geophysical Research D: Atmospheres, 2015, 120, 1202-1220.	1.2	18

#	Article	IF	Citations
127	The global variation of CH4 and CO as seen by SCIAMACHY. Advances in Space Research, 2005, 36, 821-827.	1.2	17
128	Simulating the integrated summertime Î”¹⁴CO₂ signature from anthropogenic emissions over Western Europe. Atmospheric Chemistry and Physics, 2014, 14, 7273-7290.	1.9	17
129	Reductions in nitrogen oxides over the Netherlands between 2005 and 2018 observed from space and on the ground: Decreasing emissions and increasing O3 indicate changing NOx chemistry. Atmospheric Environment: X, 2021, 9, 100104.	0.8	17
130	Nonlinear Dynamics in Atmospheric Chemistry Rate Equations. , 1998, 29, 1-16.		16
131	Tracing the origin and ages of interlaced atmospheric pollution events over the tropical Atlantic Ocean with in situ measurements, satellites, trajectories, emission inventories, and global models. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	16
132	Influence of Atmospheric Transport on Estimates of Variability in the Global Methane Burden. Geophysical Research Letters, 2019, 46, 2302-2311.	1.5	16
133	The impact of model grid zooming on tracer transport in the 1999/2000 Arctic polar vortex. Atmospheric Chemistry and Physics, 2003, 3, 1833-1847.	1.9	15
134	Iconic CO ₂ Time Series at Risk. Science, 2012, 337, 1038-1040.	6.0	15
135	Can we explain the observed methane variability after the Mount Pinatubo eruption?. Atmospheric Chemistry and Physics, 2016, 16, 195-214.	1.9	15
136	Ozone and carbon monoxide budgets over the Eastern Mediterranean. Science of the Total Environment, 2016, 563-564, 40-52.	3.9	15
137	On the use of satellite-derived CH₄ : CO₂ columns in a joint inversion of CH₄ and CO₂ fluxes. Atmospheric Chemistry and Physics, 2015, 15, 8615-8629.	1.9	14
138	Comment on â€œMultiple steady states in atmospheric chemistryâ€•by Richard W. Stewart. Journal of Geophysical Research, 1995, 100, 11699.	3.3	13
139	Quantifying the transport of subcloud layer reactants by shallow cumulus clouds over the Amazon. Journal of Geophysical Research D: Atmospheres, 2013, 118, 13,041.	1.2	13
140	A three-dimensional-model inversion of methyl chloroform to constrain the atmospheric oxidative capacity. Atmospheric Chemistry and Physics, 2021, 21, 4809-4824.	1.9	13
141	Isotopic evidence for biogenic molecular hydrogen production in the Atlantic Ocean. Biogeosciences, 2016, 13, 323-340.	1.3	12
142	The impact of precipitation evaporation on the atmospheric aerosol distribution in EC-Earth v3.2.0. Geoscientific Model Development, 2018, 11, 1443-1465.	1.3	12
143	Towards a European Cal/Val service for earth observation. International Journal of Remote Sensing, 2020, 41, 4496-4511.	1.3	12
144	Changing trends in tropospheric methane and carbon monoxide: A sensitivity analysis of the OH-radical. Journal of Atmospheric Chemistry, 1996, 25, 271-288.	1.4	11

#	Article	IF	Citations
145	Cumulative ozone effect on canopy stomatal resistance and the impact on boundary layer dynamics and CO₂ assimilation at the diurnal scale: A case study for grassland in the Netherlands. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1348-1365.	1.3	11
146	The effect of assimilating satellite-derived soil moisture data in SiBCASA on simulated carbon fluxes in Boreal Eurasia. Hydrology and Earth System Sciences, 2016, 20, 605-624.	1.9	11
147	Three Years of Î”¹⁴CO₂Observations from Maize Leaves in the Netherlands and Western Europe. Radiocarbon, 2016, 58, 459-478.	0.8	11
148	Biogenic emissions and landâ€“atmosphere interactions as drivers of the daytime evolution of secondary organic aerosol in the southeastern US. Atmospheric Chemistry and Physics, 2019, 19, 701-729.	1.9	11
149	Methane budget estimates in Finland from the CarbonTracker Europe-CH₄ data assimilation system. Tellus, Series B: Chemical and Physical Meteorology, 2022, 71, 1565030.	0.8	11
150	Description and evaluation of a detailed gas-phase chemistry scheme in the TM5-MP global chemistry transport model (r112). Geoscientific Model Development, 2020, 13, 5507-5548.	1.3	11
151	Correction to â€œThe contribution of ocean-leaving DMS to the global atmospheric burdens of DMS, MSA, SO2, and NSS SO4=â€• Global Biogeochemical Cycles, 2003, 17, n/a-n/a.	1.9	10
152	On the variation of regional CO₂ exchange over temperate and boreal North America. Global Biogeochemical Cycles, 2013, 27, 991-1000.	1.9	10
153	Numerical simulation of the interaction between ammonium nitrate aerosol and convective boundary-layer dynamics. Atmospheric Environment, 2015, 105, 202-211.	1.9	10
154	Reply [to â€œComment on â€œGlobal OH trend inferred from methylchloroform measurementsâ€•by Maarten Krol et al.â€]. Journal of Geophysical Research, 2001, 106, 23159-23164.	3.3	9
155	Multiphase processes in the EC-Earth model and their relevance to the atmospheric oxalate, sulfate, and iron cycles. Geoscientific Model Development, 2022, 15, 3079-3120.	1.3	9
156	Tropospheric ozone over a tropical Atlantic station in the Northern Hemisphere: Paramaribo, Surinam (6oN, 55oW). Tellus, Series B: Chemical and Physical Meteorology, 2004, 56, 21-34.	0.8	8
157	A largeâ€eddy simulation of the phase transition of ammonium nitrate in a convective boundary layer. Journal of Geophysical Research D: Atmospheres, 2013, 118, 826-836.	1.2	8
158	Solving Vertical Transport and Chemistry in Air Pollution Models. The IMA Volumes in Mathematics and Its Applications, 2002, , 1-20.	0.5	8
159	Theoretical investigations of the nature of intramolecular interactions. Molecular Physics, 1988, 63, 921-938.	0.8	7
160	Covariation of Airborne Biogenic Tracers (CO₂, COS, and CO) Supports Stronger Than Expected Growing Season Photosynthetic Uptake in the Southeastern US. Global Biogeochemical Cycles, 2021, 35, e2021GB006956.	1.9	7
161	Theoretical investigations of the nature of intramolecular interactions. Molecular Physics, 1991, 72, 375-393.	0.8	6
162	Correction to â€œScanning Imaging Absorption Spectrometer for Atmospheric Chartography carbon monoxide total columns: Statistical evaluation and comparison with chemistry transport model resultsâ€• Journal of Geophysical Research, 2007, 112, .	3.3	6

#	Article	IF	Citations
163	Ozone deposition impact assessments for forest canopies require accurate ozone flux partitioning on diurnal timescales. Atmospheric Chemistry and Physics, 2021, 21, 18393-18411.	1.9	6
164	Role of oceanic ozone deposition in explaining temporal variability in surface ozone at High Arctic sites. Atmospheric Chemistry and Physics, 2021, 21, 10229-10248.	1.9	5
165	Evaluation of nitrogen oxides (NO_{<i>x</i>}) sources and sinks and ozone production in Colombia and surrounding areas. Atmospheric Chemistry and Physics, 2020, 20, 9441-9458.	1.9	5
166	Technical note: Interpretation of field observations of point-source methane plume using observation-driven large-eddy simulations. Atmospheric Chemistry and Physics, 2022, 22, 6489-6505.	1.9	5
167	Emission ratio and isotopic signatures of molecular hydrogen emissions from tropical biomass burning. Atmospheric Chemistry and Physics, 2013, 13, 9401-9413.	1.9	4
168	Explicit aerosolâ€“cloud interactions in the Dutch Atmospheric Large-Eddy Simulation model DALES4.1-M7. Geoscientific Model Development, 2019, 12, 5177-5196.	1.3	4
169	A New Algorithm for Two-Way Nesting in Global Models: Principles and Applications. , 2002, , 225-234.		3
170	The determination of nitrogen dioxide in ambient air with free hanging filters as passive samplers, and a new calibration method using fritted bubblers. Journal of Environmental Monitoring, 2009, 11, 2216.	2.1	2
171	A pragmatic protocol for characterising errors in atmospheric inversions of methane emissions over Europe. Tellus, Series B: Chemical and Physical Meteorology, 2022, 73, 1914989.	0.8	2
172	Global and Regional Aerosol Modelling: A Picture Over Europe. , 2005, , 373-381.		2
173	A GC-IRMS method for measuring sulfur isotope ratios of carbonyl sulfide from small air samples. Open Research Europe, 0, 1, 105.	2.0	2
174	Evaluation of two common source estimation measurement strategies using large-eddy simulation of plume dispersion under neutral atmospheric conditions. Atmospheric Measurement Techniques, 2022, 15, 3611-3628.	1.2	2
175	A GC-IRMS method for measuring sulfur isotope ratios of carbonyl sulfide from small air samples. Open Research Europe, 0, 1, 105.	2.0	1
176	Synergistic Use of Retrieved Trace Constituent Distributions and Numerical Modelling. Physics of Earth and Space Environments, 2011, , 451-492.	0.5	1
177	The Role of Emission Sources and Atmospheric Sink in the Seasonal Cycle of CH4 and Î´13-CH4: Analysis Based on the Atmospheric Chemistry Transport Model TM5. Atmosphere, 2022, 13, 888.	1.0	1
178	Validation of CO and CH4 Retrieved from SCIAMACHY. , 2004, , 361-371.		0
179	Impact of Aerosol Radiation Absorption on the Heat Budget and Dynamics of the Atmospheric Boundary Layer. NATO Science for Peace and Security Series C: Environmental Security, 2014, , 113-117.	0.1	0
180	On the Segregation of Chemical Species in a Clear Boundary Layer Over Heterogeneous Surface Conditions. NATO Science for Peace and Security Series C: Environmental Security, 2014, , 541-546.	0.1	0

#	Article	IF	Citations
181	Treatment of Transport in MOGUNTIA. , 1994, , 623-624.		0