Physical processes in the tropical tropopause layer and

Nature Geoscience

6, 169-176

DOI: 10.1038/ngeo1733

Citation Report

#	Article	IF	Citations
1	Development and Testing of a Surface Flux and Planetary Boundary Layer Model for Application in Mesoscale Models. Journal of Applied Meteorology and Climatology, 1995, 34, 16-32.	1.7	259
2	Microbes in the Upper Atmosphere and Unique Opportunities for Astrobiology Research. Astrobiology, 2013, 13, 981-990.	1.5	72
3	A new wave scheme for trajectory simulations of stratospheric water vapor. Geophysical Research Letters, 2013, 40, 5286-5290.	1.5	27
4	Temperature trends in the tropical upper troposphere and lower stratosphere: Connections with sea surface temperatures and implications for water vapor and ozone. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9658-9672.	1.2	47
5	Improved cirrus simulations in a general circulation model using CARMA sectional microphysics. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,679.	1.2	20
6	Microphysical, radiative, and dynamical impacts of thin cirrus clouds on humidity in the tropical tropopause layer and lower stratosphere. Geophysical Research Letters, 2014, 41, 6949-6955.	1.5	17
7	Tropical troposphere to stratosphere transport of carbon monoxide and long-lived trace species in the Chemical Lagrangian Model of the Stratosphere (CLaMS). Geoscientific Model Development, 2014, 7, 2895-2916.	1.3	104
8	The implementation of the CLaMS Lagrangian transport core into the chemistry climate model EMAC 2.40.1: application on age of air and transport of long-lived trace species. Geoscientific Model Development, 2014, 7, 2639-2651.	1.3	30
9	Vertical structure of stratospheric water vapour trends derived from merged satellite data. Nature Geoscience, 2014, 7, 768-776.	5.4	149
10	The Residual-Mean Circulation in the Tropical Tropopause Layer Driven by Tropical Waves. Journals of the Atmospheric Sciences, 2014, 71, 1305-1322.	0.6	22
11	Trends in Monthly Tropopause Characteristics Observed over Taipei, Taiwan*. Journals of the Atmospheric Sciences, 2014, 71, 1323-1338.	0.6	6
13	Eos, Transactions, American Geophysical Union Volume 95, Number 27, 8 July 2014. Eos, 2014, 95, 245-252.	0.1	2
14	Another Drop in Water Vapor. Eos, 2014, 95, 245-246.	0.1	31
15	Dry phase of tropical lower stratospheric water vapor: Role of BDC, convection and ozone variability. Journal of Atmospheric and Solar-Terrestrial Physics, 2014, 121, 257-270.	0.6	3
16	Supersaturation Variability and Cirrus Ice Crystal Size Distributions. Journals of the Atmospheric Sciences, 2014, 71, 2905-2926.	0.6	28
17	Sampling the composition of cirrus ice residuals. Atmospheric Research, 2014, 142, 15-31.	1.8	71
18	Tropical tropopause dynamics (TTD) campaigns over Indian region: An overview. Journal of Atmospheric and Solar-Terrestrial Physics, 2014, 121, 229-239.	0.6	41
19	PV-θ view of diabaticâ€“dynamical interaction in the general circulation. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 66, 24880.	0.8	1

#	Article	IF	Citations
20	Bromine partitioning in the tropical tropopause layer: implications for stratospheric injection. Atmospheric Chemistry and Physics, 2014, 14, 13391-13410.	1.9	90
21	Dispersion of the Nabro volcanic plume and its relation to the Asian summer monsoon. Atmospheric Chemistry and Physics, 2014, 14, 7045-7057.	1.9	59
22	The response of the equatorial tropospheric ozone to the Maddenâ€“Julian Oscillation in TES satellite observations and CAM-chem model simulation. Atmospheric Chemistry and Physics, 2014, 14, 11775-11790.	1.9	8
23	Cirrus and water vapour transport in the tropical tropopause layer â€“ Part 2: Roles of ice nucleation and sedimentation, cloud dynamics, and moisture conditions. Atmospheric Chemistry and Physics, 2014, 14, 12225-12236.	1.9	18
24	Trends in peroxyacetyl nitrate (PAN) in the upper troposphere and lower stratosphere over southern Asia during the summer monsoon season: regional impacts. Atmospheric Chemistry and Physics, 2014, 14, 12725-12743.	1.9	39
25	On the hiatus in the acceleration of tropical upwelling since the beginning of the 21st century. Atmospheric Chemistry and Physics, 2014, 14, 12803-12814.	1.9	16
26	Convective transport of very short lived bromocarbons to the stratosphere. Atmospheric Chemistry and Physics, 2014, 14, 5781-5792.	1.9	59
27	Trajectory model simulations of ozone (O₃) and carbon monoxide (CO) in the lower stratosphere. Atmospheric Chemistry and Physics, 2014, 14, 7135-7147.	1.9	19
28	Cloud formation, convection, and stratospheric dehydration. Earth and Space Science, 2014, 1, 1-17.	1.1	35
29	An assessment of upper troposphere and lower stratosphere water vapor in MERRA, MERRA2, and ECMWF reanalyses using Aura MLS observations. Journal of Geophysical Research D: Atmospheres, 2015, 120, 11,468.	1.2	72
30	Impact of stratospheric major warmings and the quasiâ€biennial oscillation on the variability of stratospheric water vapor. Geophysical Research Letters, 2015, 42, 4599-4607.	1.5	25
31	Indo-Pacific Warm Pool Area Expansion, Modoki Activity and Tropical Cold-Point Tropopause Temperature Variations. Scientific Reports, 2014, 4, 4552.	1.6	31
32	Identifying robust transport features of the upper tropical troposphere. Journal of Geophysical Research D: Atmospheres, 2015, 120, 6758-6776.	1.2	7
33	Gravity waves amplify upper tropospheric dehydration by clouds. Earth and Space Science, 2015, 2, 485-500.	1.1	30
34	Sources of seasonal variability in tropical upper troposphere and lower stratosphere water vapor and ozone: Inferences from the Ticosonde data set at Costa Rica. Journal of Geophysical Research D: Atmospheres, 2015, 120, 9684-9701.	1.2	5
35	Distributions of ice supersaturation and ice crystals from airborne observations in relation to upper tropospheric dynamical boundaries. Journal of Geophysical Research D: Atmospheres, 2015, 120, 5101-5121.	1.2	15
36	The impact of temperature vertical structure on trajectory modeling of stratospheric water vapor. Atmospheric Chemistry and Physics, 2015, 15, 3517-3526.	1.9	17
37	Quantifying contributions to the recent temperature variability in the tropical tropopause layer. Atmospheric Chemistry and Physics, 2015, 15, 5815-5826.	1.9	17

#	Article	IF	Citations
38	Long-term trend analysis and climatology of tropical cirrus clouds using 16 years of lidar data set over Southern India. Atmospheric Chemistry and Physics, 2015, 15, 13833-13848.	1.9	31
39	On the emissions and transport of bromoform: sensitivity to model resolution and emission location. Atmospheric Chemistry and Physics, 2015, 15, 14031-14040.	1.9	6
40	A global non-hydrostatic model study of a downward coupling through the tropical tropopause layer during a stratospheric sudden warming. Atmospheric Chemistry and Physics, 2015, 15, 297-304.	1.9	26
41	The impact of overshooting deep convection on local transport and mixing in the tropical upper troposphere/lower stratosphere (UTLS). Atmospheric Chemistry and Physics, 2015, 15, 6467-6486.	1.9	38
42	Simulation of the isotopic composition of stratospheric water vapour â€“ Part 2: Investigation of HDO / H₂O variations. Atmospheric Chemistry and Physics, 2015, 15, 7003-7015.	1.9	13
43	Dynamical, convective, and microphysical control on wintertime distributions of water vapor and clouds in the tropical tropopause layer. Journal of Geophysical Research D: Atmospheres, 2015, 120, 10,483.	1.2	53
44	The vertical structure of cloud radiative heating over the Indian subcontinent during summer monsoon. Atmospheric Chemistry and Physics, 2015, 15, 11557-11570.	1.9	17
45	Seasonal and interannual variations in HCN amounts in the upper troposphere and lower stratosphere observed by MIPAS. Atmospheric Chemistry and Physics, 2015, 15, 563-582.	1.9	21
46	Direct impacts of waves on tropical cold point tropopause temperature. Geophysical Research Letters, 2015, 42, 1584-1592.	1.5	50
47	Formation and Maintenance of the Tropical Cold-Point Tropopause in a Dry Dynamic-Core GCM. Journals of the Atmospheric Sciences, 2015, 72, 3097-3115.	0.6	3
48	Advancements in decadal climate predictability: The role of nonoceanic drivers. Reviews of Geophysics, 2015, 53, 165-202.	9.0	81
49	A two-channel, tunable diode laser-based hygrometer for measurement of water vapor and cirrus cloud ice water content in the upper troposphere and lower stratosphere. Atmospheric Measurement Techniques, 2015, 8, 211-224.	1.2	29
50	Role of deep convection on the tropical tropopause characteristics at sub-daily scales over the South India monsoon region. Atmospheric Research, 2015, 161-162, 14-24.	1.8	13
51	Investigation of the transport processes controlling the geographic distribution of carbon monoxide at the tropical tropopause. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2067-2086.	1.2	10
52	Tropical climate change control of the lower stratospheric circulation. Geophysical Research Letters, 2015, 42, 941-948.	1.5	15
53	Variability of Zonal Mean Tropical Temperatures Derived from a Decade of GPS Radio Occultation Data. Journals of the Atmospheric Sciences, 2015, 72, 1261-1275.	0.6	49
54	A Comparative Study of Wave Forcing Derived from the ERA-40 and ERA-Interim Reanalysis Datasets. Journal of Climate, 2015, 28, 2291-2311.	1.2	9
55	Air quality simulation over South Asia using Hemispheric Transport of Air Pollution version-2 (HTAP-v2) emission inventory and Model for Ozone and Related chemical Tracers (MOZART-4). Atmospheric Environment, 2015, 122, 357-372.	1.9	26

#	Article	IF	Citations
56	Clouds and Water Vapor in the Tropical Tropopause Transition Layer over Mesoscale Convective Systems. Journals of the Atmospheric Sciences, 2015, 72, 4739-4753.	0.6	17
58	Intercomparison of in situ water vapor balloon-borne measurements from Pico-SDLA H₂O and FLASH-B in the tropical UTLS. Atmospheric Measurement Techniques, 2016, 9, 1207-1219.	1.2	7
59	Air parcel trajectory dispersion near the tropical tropopause. Journal of Geophysical Research D: Atmospheres, 2016, 121, 3759-3775.	1.2	7
60	Evaluation of water vapour assimilation in the tropical upper troposphere and lower stratosphere by a chemical transport model. Atmospheric Measurement Techniques, 2016, 9, 4355-4373.	1.2	3
61	Global distribution of deep convection reaching tropopause in 1â€‰year GPM observations. Journal of Geophysical Research D: Atmospheres, 2016, 121, 3824-3842.	1.2	75
62	Radiative Impacts of the 2011 Abrupt Drops in Water Vapor and Ozone in the Tropical Tropopause Layer. Journal of Climate, 2016, 29, 595-612.	1.2	27
63	The impact of gravity waves and cloud nucleation threshold on stratospheric water and tropical tropospheric cloud fraction. Earth and Space Science, 2016, 3, 295-305.	1.1	17
64	Ubiquitous influence of waves on tropical high cirrus clouds. Geophysical Research Letters, 2016, 43, 5895-5901.	1.5	42
65	Decadal variability of tropical tropopause temperature and its relationship to the Pacific Decadal Oscillation. Scientific Reports, 2016, 6, 29537.	1.6	23
66	Transport pathways from the Asian monsoon anticyclone to the stratosphere. Atmospheric Chemistry and Physics, 2016, 16, 2703-2718.	1.9	87
67	Trapping, chemistry, and export of trace gases in the South Asian summer monsoon observed during CARIBIC flights in 2008. Atmospheric Chemistry and Physics, 2016, 16, 3609-3629.	1.9	13
68	The millennium water vapour drop in chemistryâ€“climate model simulations. Atmospheric Chemistry and Physics, 2016, 16, 8125-8140.	1.9	27
69	Impact of the Asian monsoon on the extratropical lower stratosphere: trace gas observations during TACTS over Europe 2012. Atmospheric Chemistry and Physics, 2016, 16, 10573-10589.	1.9	34
70	Evidence of horizontal and vertical transport of water in the Southern Hemisphere tropical tropopause layer (TTL) from high-resolution balloon observations. Atmospheric Chemistry and Physics, 2016, 16, 12273-12286.	1.9	14
71	Global HCFC-22 measurements with MIPAS: retrieval, validation, global distribution and its evolution over 2005â€“2012. Atmospheric Chemistry and Physics, 2016, 16, 3345-3368.	1.9	27
72	Evaluation of UTLS carbon monoxide simulations in GMI and GEOS-Chem chemical transport models using Aura MLS observations. Atmospheric Chemistry and Physics, 2016, 16, 5641-5663.	1.9	10
73	The Variations in Middle and Upper Stratospheric Water Vapour over the Past Two Decades. Scientific Online Letters on the Atmosphere, 2016, 12, 127-134.	0.6	3
74	Lagrangian temperature and vertical velocity fluctuations due to gravity waves in the lower stratosphere. Geophysical Research Letters, 2016, 43, 3543-3553.	1.5	70

#	Article	IF	Citations
75	The Double Peak in Upwelling and Heating in the Tropical Lower Stratosphere. Journals of the Atmospheric Sciences, 2016, 73, 1889-1901.	0.6	11
76	Tropical Upper-Tropospheric Potential Vorticity Intrusions during Sudden Stratospheric Warmings. Journals of the Atmospheric Sciences, 2016, 73, 2361-2384.	0.6	15
77	Spectrum of Wave Forcing Associated with the Annual Cycle of Upwelling at the Tropical Tropopause. Journals of the Atmospheric Sciences, 2016, 73, 855-868.	0.6	13
78	Coordinated Airborne Studies in the Tropics (CAST). Bulletin of the American Meteorological Society, 2017, 98, 145-162.	1.7	25
79	The Convective Transport of Active Species in the Tropics (CONTRAST) Experiment. Bulletin of the American Meteorological Society, 2017, 98, 106-128.	1.7	50
80	Changes of the Tropical Tropopause Layer under Global Warming. Journal of Climate, 2017, 30, 1245-1258.	1.2	42
81	A comprehensive overview of the climatological composition of the Asian summer monsoon anticyclone based on 10Âyears of Aura Microwave Limb Sounder measurements. Journal of Geophysical Research D: Atmospheres, 2017, 122, 5491-5514.	1.2	70
82	Cirrus Clouds and Their Response to Anthropogenic Activities. Current Climate Change Reports, 2017, 3, 45-57.	2.8	53
83	Characteristics of observed tropopause height derived from L-band sounder over the Tibetan Plateau and surrounding areas. Asia-Pacific Journal of Atmospheric Sciences, 2017, 53, 1-10.	1.3	5
85	Impact of inter-seasonal solar variability on the association of lower troposphere and cold point tropopause in the tropics: Observations using RO data from COSMIC. Atmospheric Research, 2017, 198, 216-225.	1.8	2
86	Untangling the Annual Cycle of the Tropical Tropopause Layer with an Idealized Moist Model. Journal of Climate, 2017, 30, 7339-7358.	1.2	48
87	Impact of tropical convection and ENSO variability in vertical distributions of CO and O3 over an urban site of India. Climate Dynamics, 2017, 49, 449-469.	1.7	10
88	Optical and geometrical properties of cirrus clouds in Amazonia derived from 1 year of ground-based lidar measurements. Atmospheric Chemistry and Physics, 2017, 17, 3619-3636.	1.9	31
89	Role of vertical and horizontal mixing in the tape recorder signal near the tropical tropopause. Atmospheric Chemistry and Physics, 2017, 17, 4337-4353.	1.9	19
90	Response of trace gases to the disrupted 2015â€“2016 quasi-biennial oscillation. Atmospheric Chemistry and Physics, 2017, 17, 6813-6823.	1.9	39
91	Impact of typhoons on the composition of the upper troposphere within the Asian summer monsoon anticyclone: the SWOP campaign in Lhasa 2013. Atmospheric Chemistry and Physics, 2017, 17, 4657-4672.	1.9	24
92	The radiative role of ozone and water vapour in the annual temperature cycle in the tropical tropopause layer. Atmospheric Chemistry and Physics, 2017, 17, 5677-5701.	1.9	18
93	The viability of trajectory analysis for diagnosing dynamical and chemical influences on ozone concentrations in the UTLS. Journal of Geophysical Research D: Atmospheres, 2017, 122, 6025-6042.	1.2	0

#	Article	IF	Citations
94	Ice water contentâ€extinction relationships and effective diameter for TTL cirrus derived from in situ measurements during ATTREX 2014. Journal of Geophysical Research D: Atmospheres, 2017, 122, 4494-4507.	1.2	23
95	On the relative importance of radiative and dynamical heating for tropical tropopause temperatures. Journal of Geophysical Research D: Atmospheres, 2017, 122, 6782-6797.	1.2	21
97	Improved GOMOS/Envisat ozone retrievals in the upper troposphere and the lower stratosphere. Atmospheric Measurement Techniques, 2017, 10, 231-246.	1.2	10
98	Measurement of water vapor using an imaging field-widened spatial heterodyne spectrometer. Applied Optics, 2017, 56, 4297.	2.1	12
103	Effect of convection on the thermal structure of the troposphere and lower stratosphere including the tropical tropopause layer in the South Asian monsoon region. Journal of Atmospheric and Solar-Terrestrial Physics, 2018, 169, 52-65.	0.6	9
104	Convectively Driven Tropopauseâ€Level Cooling and Its Influences on Stratospheric Moisture. Journal of Geophysical Research D: Atmospheres, 2018, 123, 590-606.	1.2	44
105	Origin, Maintenance and Variability of the Asian Tropopause Aerosol Layer (ATAL): The Roles of Monsoon Dynamics. Scientific Reports, 2018, 8, 3960.	1.6	44
106	Aerosol characteristics and particle production in the upper troposphere over the Amazon Basin. Atmospheric Chemistry and Physics, 2018, 18, 921-961.	1.9	105
107	Effect of the Indo-Pacific Warm Pool on Lower-Stratospheric Water Vapor and Comparison with the Effect of ENSO. Journal of Climate, 2018, 31, 929-943.	1.2	20
108	Effects of convective ice evaporation on interannual variability of tropical tropopause layer water vapor. Atmospheric Chemistry and Physics, 2018, 18, 4425-4437.	1.9	13
109	Water vapour and methane coupling in the stratosphere observed using SCIAMACHY solar occultation measurements. Atmospheric Chemistry and Physics, 2018, 18, 4463-4476.	1.9	15
110	Modeling the TTL at Continental Scale for a Wet Season: An Evaluation of the BRAMS Mesoscale Model Using TROâ€Pico Campaign, and Measurements From Airborne and Spaceborne Sensors. Journal of Geophysical Research D: Atmospheres, 2018, 123, 2491-2508.	1.2	2
111	Water vapor increase in the lower stratosphere of the Northern Hemisphere due to the Asian monsoon anticyclone observed during the TACTS/ESMVal campaigns. Atmospheric Chemistry and Physics, 2018, 18, 2973-2983.	1.9	22
112	Cross tropopause flux observed at sub-daily scales over the south Indian monsoon regions. Atmospheric Research, 2018, 201, 72-85.	1.8	7
113	Emission of short-lived halocarbons by three common tropical marine microalgae during batch culture. Journal of Applied Phycology, 2018, 30, 341-353.	1.5	21
114	Cirrus Cloud Properties as Seen by the CALIPSO Satellite and ECHAM-HAM Global Climate Model. Journal of Climate, 2018, 31, 1983-2003.	1.2	31
115	Aerosol characteristics in the upper troposphere and lower stratosphere region during successive and contrasting Indian summer monsoon season. Atmospheric Environment, 2018, 173, 46-52.	1.9	4
116	Chlorine-containing salts as water ice nucleating particles on Mars. Icarus, 2018, 303, 280-287.	1.1	4

#	Article	IF	Citations
117	A warming tropical central Pacific dries the lower stratosphere. Climate Dynamics, 2018, 50, 2813-2827.	1.7	16
118	Sensitivities of modelled water vapour in the lower stratosphere: temperature uncertainty, effects of horizontal transport and small-scale mixing. Atmospheric Chemistry and Physics, 2018, 18, 8505-8527.	1.9	17
119	Ozone sensitivity of tropical upperâ€troposphere and stratosphere temperature in the MetOffice Unified Model. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 2001-2009.	1.0	7
120	The Impact of Cloud Radiative Effects on the Tropical Tropopause Layer Temperatures. Atmosphere, 2018, 9, 377.	1.0	24
121	The Mechanisms Leading to a Stratospheric Hydration by Overshooting Convection. Journals of the Atmospheric Sciences, 2018, 75, 4383-4398.	0.6	26
123	SO 2 Observations and Sources in the Western Pacific Tropical Tropopause Region. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,549.	1.2	11
124	Intermodel Differences in Upwelling in the Tropical Tropopause Layer Among CMIP5 Models. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,658.	1.2	5
125	Balloon-borne measurements of temperature, water vapor, ozone and aerosol backscatter on the southern slopes of the Himalayas during StratoClim 2016â€“2017. Atmospheric Chemistry and Physics, 2018, 18, 15937-15957.	1.9	69
126	Lapse Rate or Cold Point: The Tropical Tropopause Identified by In Situ Trace Gas Measurements. Geophysical Research Letters, 2018, 45, 10,756.	1.5	25
127	Response of stratospheric water vapor and ozone to the unusual timing of El NiÃ±o and the QBO disruption in 2015â€“2016. Atmospheric Chemistry and Physics, 2018, 18, 13055-13073.	1.9	48
128	The Simulation of Stratospheric Water Vapor Over the Asian Summer Monsoon in CESM1(WACCM) Models. Journal of Geophysical Research D: Atmospheres, 2018, 123, 11377-11391.	1.2	13
130	Convective Hydration of the Upper Troposphere and Lower Stratosphere. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4583-4593.	1.2	39
131	Convective Influence on the Humidity and Clouds in the Tropical Tropopause Layer During Boreal Summer. Journal of Geophysical Research D: Atmospheres, 2018, 123, 7576-7593.	1.2	52
132	Longâ€Term Variation in the Mixing Fraction of Tropospheric and Stratospheric Air Masses in the Upper Tropical Tropopause Layer. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4890-4909.	1.2	3
133	Spatial Heterodyne Observations of Water (SHOW) vapour in the upper troposphere and lower stratosphere from a high altitude aircraft: Modelling and sensitivity analysis. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 209, 137-149.	1.1	9
134	Upper tropospheric ozone transport from the sub-tropics to tropics over the Indian region during Asian summer monsoon. Climate Dynamics, 2019, 52, 4567-4581.	1.7	15
135	Large Uncertainties in Estimation of Tropical Tropopause Temperature Variabilities Due to Model Vertical Resolution. Geophysical Research Letters, 2019, 46, 10043-10052.	1.5	14
136	A Diagnostic Equation for Tendency of Lapse-Rate-Tropopause Heights and Its Application. Journals of the Atmospheric Sciences, 2019, 76, 3337-3350.	0.6	1

#	Article	IF	Citations
137	An Evaluation of the Representation of Tropical Tropopause Cirrus in the CESM/CARMA Model Using Satellite and Aircraft Observations. Journal of Geophysical Research D: Atmospheres, 2019, 124, 8659-8687.	1.2	4
138	Accuracy of Balloon Trajectory Forecasts in the Lower Stratosphere. Atmosphere, 2019, 10, 102.	1.0	4
139	The impact of recent changes in Asian anthropogenic emissions of SO₂ on sulfate loading in the upper troposphere and lower stratosphere and the associated radiative changes. Atmospheric Chemistry and Physics, 2019, 19, 9989-10008.	1.9	24
140	Interannual variations of water vapor in the tropical upper troposphere and the lower and middle stratosphere and their connections to ENSO and QBO. Atmospheric Chemistry and Physics, 2019, 19, 9913-9926.	1.9	16
144	On the Relationship between Gravity Waves and Tropopause Height and Temperature over the Globe Revealed by COSMIC Radio Occultation Measurements. Atmosphere, 2019, 10, 75.	1.0	7
145	Diagnosing Observed Stratospheric Water Vapor Relationships to the Cold Point Tropical Tropopause. Journal of Geophysical Research D: Atmospheres, 2019, 124, 7018-7033.	1.2	49
146	Implication of tropical lower stratospheric cooling in recent trends in tropical circulation and deep convective activity. Atmospheric Chemistry and Physics, 2019, 19, 2655-2669.	1.9	10
147	Evaluation of CESM1 (WACCM) free-running and specified dynamics atmospheric composition simulations using global multispecies satellite data records. Atmospheric Chemistry and Physics, 2019, 19, 4783-4821.	1.9	40
148	Ice injected into the tropopause by deep convection â€“ PartÂ1: In the austral convective tropics. Atmospheric Chemistry and Physics, 2019, 19, 6459-6479.	1.9	6
149	Multitimescale variations in modeled stratospheric water vapor derived from three modern reanalysis products. Atmospheric Chemistry and Physics, 2019, 19, 6509-6534.	1.9	23
150	Lagrangian simulations of the transport of young air masses to the top of the Asian monsoon anticyclone and into the tropical pipe. Atmospheric Chemistry and Physics, 2019, 19, 6007-6034.	1.9	57
151	Water Vapor, Clouds, and Saturation in the Tropical Tropopause Layer. Journal of Geophysical Research D: Atmospheres, 2019, 124, 3984-4003.	1.2	34
152	Tropopause trend across China from 1979 to 2016: A revisit with updated radiosonde measurements. International Journal of Climatology, 2019, 39, 1117-1127.	1.5	10
153	Large Anomalies in the Tropical Upper Troposphere Lower Stratosphere (UTLS) Trace Gases Observed during the Extreme 2015â€“16 El NiÃ±o Event by Using Satellite Measurements. Remote Sensing, 2019, 11, 687.	1.8	14
154	The role of ASM on the formation and properties of cirrus clouds over the Tibetan Plateau. Tellus, Series B: Chemical and Physical Meteorology, 2022, 71, 1577070.	0.8	2
155	Spatial heterodyne observations of water (SHOW) from a high-altitude airplane: characterization, performance, and first results. Atmospheric Measurement Techniques, 2019, 12, 431-455.	1.2	6
156	Validation of the Water Vapor Profiles of the Raman Lidar at the MaÃ¯do Observatory (Reunion Island) Calibrated with Global Navigation Satellite System Integrated Water Vapor. Atmosphere, 2019, 10, 713.	1.0	7
157	Technical note: Reanalysis of Aura MLS chemical observations. Atmospheric Chemistry and Physics, 2019, 19, 13647-13679.	1.9	20

#	Article	IF	Citations
159	The efficiency of transport into the stratosphere via the Asian and North American summer monsoon circulations. Atmospheric Chemistry and Physics, 2019, 19, 15629-15649.	1.9	19
160	Effects of sea salt aerosols on precipitation and upper troposphere/lower stratosphere water vapour in tropical cyclone systems. Scientific Reports, 2019, 9, 15105.	1.6	4
161	Coral endosymbionts (Symbiodiniaceae) emit species-specific volatilomes that shift when exposed to thermal stress. Scientific Reports, 2019, 9, 17395.	1.6	35
162	Influences of atmospheric ventilation on the composition of the upper troposphere and lower stratosphere during the two primary modes of the South Asia high. Meteorology and Atmospheric Physics, 2020, 132, 559-570.	0.9	1
163	Impact of Convectively Detrained Ice Crystals on the Humidity of the Tropical Tropopause Layer in Boreal Winter. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032894.	1.2	9
164	Radioisotopes demonstrate changes in global atmospheric circulation possibly caused by global warming. Scientific Reports, 2020, 10, 10695.	1.6	13
165	Increase in Lower Stratospheric Water Vapor in the Past 100ÂYears Related to Tropical Atlantic Warming. Geophysical Research Letters, 2020, 47, e2020GL090539.	1.5	10
166	Robust Acceleration of Stratospheric Moistening and Its Radiative Feedback Under Greenhouse Warming. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD033090.	1.2	7
167	ENSO signatures observed in tropical tropopause layer parameters using long-term COSMIC RO data. GPS Solutions, 2020, 24, 1.	2.2	4
168	Analysis of factors influencing tropical lower stratospheric water vapor during 1980â€“2017. Npj Climate and Atmospheric Science, 2020, 3, .	2.6	11
169	Tropical cyclones impact on tropopause and the lower stratosphere vapour based on satellite data. Atmospheric Science Letters, 2020, 21, e1006.	0.8	2
170	Comparison of ISSâ€“CATS and CALIPSOâ€“CALIOP Characterization of High Clouds in the Tropics. Remote Sensing, 2020, 12, 3946.	1.8	3
171	Seasonal and interannual variations of water vapor in the upper troposphere and lower stratosphere over the Asian Summer Monsoon region- in perspective of the tropopause and ocean-atmosphere interactions. Journal of Atmospheric and Solar-Terrestrial Physics, 2020, 201, 105244.	0.6	10
172	Footprint of Tropical Mesoscale Convective System Variability on Stratospheric Water Vapor. Geophysical Research Letters, 2020, 47, e2019GL086320.	1.5	7
173	Transport of Asian surface pollutants to the global stratosphere from the Tibetan Plateau region during the Asian summer monsoon. National Science Review, 2020, 7, 516-533.	4.6	63
174	Calculation of the Vertical Velocity in the Asian Summer Monsoon Anticyclone Region Using the Thermodynamic Method With in situ and Satellite Data. Frontiers in Earth Science, 2020, 8, .	0.8	1
175	Temperature and tropopause characteristics from reanalyses data in the tropical tropopause layer. Atmospheric Chemistry and Physics, 2020, 20, 753-770.	1.9	57
176	Zonally resolved water vapour coupling with tropical tropopause temperature: Seasonal and interannual variability, and influence of the Walker circulation. Climate Dynamics, 2020, 54, 4657-4673.	1.7	4

#	Article	IF	Citations
177	A rising trend of double tropopauses over South Asia in a warming environment: Implications for moistening of the lower stratosphere. International Journal of Climatology, 2021, 41, E200.	1.5	1
178	Heat stress decreases the diversity, abundance and functional potential of coral gas emissions. Global Change Biology, 2021, 27, 879-891.	4.2	14
179	Seasonal migration of cirrus clouds by using CALIOP observations. Meteorology and Atmospheric Physics, 2021, 133, 579-587.	0.9	1
180	Variability in QBO Temperature Anomalies on Annual and Decadal Time Scales. Journal of Climate, 2021, 34, 589-605.	1.2	8
181	Impacts of Ozone Changes in the Tropopause Layer on Stratospheric Water Vapor. Atmosphere, 2021, 12, 291.	1.0	2
182	Ice injected into the tropopause by deep convection â€“ Part 2: Over the Maritime Continent. Atmospheric Chemistry and Physics, 2021, 21, 2191-2210.	1.9	1
183	Record-breaking aerosol levels explained by smoke injection into the stratosphere. Science, 2021, 371, 1269-1274.	6.0	68
184	Tropical Temperature Variability in the UTLS: New Insights from GPS Radio Occultation Observations. Journal of Climate, 2021, 34, 2813-2838.	1.2	21
185	On the Formation of Tropopause Folds and Constituent Gradient Enhancement Near Westerly Jets. Journals of the Atmospheric Sciences, 2021, , .	0.6	1
186	A reel-down instrument system for profile measurements of water vapor, temperature, clouds, and aerosol beneath constant-altitude scientific balloons. Atmospheric Measurement Techniques, 2021, 14, 2635-2648.	1.2	6
187	Captured cirrus ice particles in high definition. Atmospheric Chemistry and Physics, 2021, 21, 7171-7185.	1.9	12
188	pyPI (v1.3): Tropical Cyclone Potential Intensity Calculations in Python. Geoscientific Model Development, 2021, 14, 2351-2369.	1.3	19
189	Influence of Upper-Troposphere Stratification and Cloud-Radiation Interaction on Convective Overshoots in the Tropical Tropopause Layer. Journals of the Atmospheric Sciences, 2021, , .	0.6	4
190	Impacts of the Indoâ€Pacific Warm Pool on Lower Stratospheric Water Vapor: Seasonality and Hemispheric Contrasts. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034363.	1.2	6
191	On the modelling of large-scale atmospheric flow. Journal of Differential Equations, 2021, 285, 751-798.	1.1	33
193	Lower Stratospheric Water Vapor Variations Diagnosed from Satellite Observations, Reanalysis Data, and a Chemistryâ€"Climate Model. Journal of Meteorological Research, 2021, 35, 701-715.	0.9	4
194	High homogeneous freezing onsets of sulfuric acid aerosol at cirrus temperatures. Atmospheric Chemistry and Physics, 2021, 21, 14403-14425.	1.9	16
195	Influence of Indian Summer Monsoon on Tropopause, Trace Gases and Aerosols in Asian Summer Monsoon Anticyclone Observed by COSMIC, MLS and CALIPSO. Remote Sensing, 2021, 13, 3486.	1.8	7

#	Article	IF	Citations
196	Stratosphereâ€Troposphere Exchange of Air Masses and Ozone Concentrations Based on Reanalyses and Observations. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035159.	1.2	10
197	Cubesats for monitoring atmospheric processes (CubeMAP): a constellation mission to study the middle atmosphere. , 2020, , .		4
198	Unsteady Vortex Behavior in the Asian Monsoon Anticyclone. Journals of the Atmospheric Sciences, 2020, 77, 4067-4088.	0.6	12
199	Optimized retrieval method for atmospheric temperature profiling based on rotational Raman lidar. Applied Optics, 2019, 58, 5170.	0.9	5
200	Ballooning for Biologists: Mission Essentials for Flying Life Science Experiments to Near Space on NASA Large Scientific Balloons. Gravitational and Space Research: Publication of the American Society for Gravitational and Space Research, 2017, 5, 52-73.	0.3	24
201	Confinement of air in the Asian monsoon anticyclone and pathways of convective air to the stratosphere during the summer season. Atmospheric Chemistry and Physics, 2020, 20, 11045-11064.	1.9	29
202	Pollution trace gas distributions and their transport in the Asian monsoon upper troposphere and lowermost stratosphere during the StratoClim campaign 2017. Atmospheric Chemistry and Physics, 2020, 20, 14695-14715.	1.9	8
214	An exploration of the connection between quasi-biennial oscillation and Madden-Julian oscillation. Environmental Research Letters, 2021, 16, 114021.	2.2	4
215	The Asian tropopause aerosol layer within the 2017 monsoon anticyclone: microphysical properties derived from aircraft-borne in situ measurements. Atmospheric Chemistry and Physics, 2021, 21, 15259-15282.	1.9	7
226	A Novel Tool for the Determination of Tropopause Heights by Using GNSS Radio Occultation Data. Atmospheric and Climate Sciences, 2017, 07, 301-313.	0.1	6
227	Sub-orbital demonstration of the Spatial Heterodyne Observations of Water (SHOW) instrument from NASAâ€™s ER-2 remote science airplane. , 2018, , .		0
228	Possible mechanisms of summer cirrus clouds over the Tibetan Plateau. Atmospheric Chemistry and Physics, 2020, 20, 11799-11808.	1.9	8
229	A Simulation Study on the New Transport Pathways of Global Tropopause Dust Layer. Geophysical Research Letters, 2021, 48, e2021GL096063.	1.5	2
230	On the cross-tropopause transport of water by tropical convective overshoots: a mesoscale modelling study constrained by in situ observations during the TRO-Pico field campaign in Brazil. Atmospheric Chemistry and Physics, 2022, 22, 881-901.	1.9	2
231	Vertical Variability of Trace Gases (Co/Wv/O3) in the Utls Over Different Asma Regions Obtained Using Satellite Measurements. SSRN Electronic Journal, 0, , .	0.4	0
232	A vertical transport window of water vapor in the troposphere over the Tibetan Plateau with implications for global climate change. Atmospheric Chemistry and Physics, 2022, 22, 1149-1157.	1.9	2
233	Analysing Seasonal Variations in the Tropical Tropopause and the Impact of Deep Convection on the Tropopause Structure Over a High-Altitude Station in the Western Ghats. Pure and Applied Geophysics, 2022, 179, 845-861.	0.8	1
234	Cross-tropopause transport of surface pollutants during the Beijing July 21 deep convection event. Journals of the Atmospheric Sciences, 2022, , .	0.6	1

#	Article	IF	Citations
235	The Contribution of Convection to the Stratospheric Water Vapor: The First Budget Using a Global Stormâ€Resolving Model. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	8
236	The Balance Between Heterogeneous and Homogeneous Nucleation of Ice Clouds Using CAM5/CARMA. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	5
237	Tracing the convective sources of air at tropical tropopause during the active and break phases of Indian summer monsoon. Climate Dynamics, 2022, 59, 2717-2734.	1.7	3
238	Persistence of moist plumes from overshooting convection in the Asian monsoon anticyclone. Atmospheric Chemistry and Physics, 2022, 22, 3169-3189.	1.9	16
239	Characterization of transport from the Asian summer monsoon anticyclone into the UTLS via shedding of low potential vorticity cutoffs. Atmospheric Chemistry and Physics, 2022, 22, 3841-3860.	1.9	3
240	Interannual shift of tropical high cloud diurnal cycle under global warming. Climate Dynamics, 2022, 59, 3391-3400.	1.7	3
241	The impact of the QBO on the region of the tropical tropopause in QBOi models: Presentâ€day simulations. Quarterly Journal of the Royal Meteorological Society, 2022, 148, 1945-1964.	1.0	3
242	Enhanced upward motion through the troposphere over the tropical western Pacific and its implications for the transport of trace gases from the troposphere to the stratosphere. Atmospheric Chemistry and Physics, 2022, 22, 4393-4411.	1.9	3
243	Mixing characteristics within the tropopause transition layer over the Asian summer monsoon region based on ozone and water vapor sounding data. Atmospheric Research, 2022, 271, 106093.	1.8	6
244	In situ observations of CH₂Cl₂ and CHCl₃ show efficient transport pathways for very short-lived species into the lower stratosphere via the Asian and the North American summer monsoon. Atmospheric Chemistry and Physics, 2022, 22, 2049-2077.	1.9	9
247	Diurnal variability of lower and middle atmospheric water vapour over the Asian summer monsoon region: first results from COSMIC-1 and TIMED-SABER measurements. Climate Dynamics, 2022, 59, 3519-3533.	1.7	1
248	Stratosphereâ€Troposphere Exchanges of Air Mass and Ozone Concentration in the Last Glacial Maximum. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	2
249	Preliminary Observations of Cold-Point Tropopause Temperature, Altitude, and Pressure in 2020 over Laoag, Philippines Using Radiosonde. , 2021, , .		0
250	A Balloon-Based Payload for Exposing Microorganisms in the Stratosphere (E-MIST). Gravitational and Space Research: Publication of the American Society for Gravitational and Space Research, 2014, 2, 70-80.	0.3	15
252	Temporal and vertical distributions of the occurrence of cirrus clouds over a coastal station in the Indian monsoon region. Atmospheric Chemistry and Physics, 2022, 22, 8321-8342.	1.9	3
253	Stable water isotope signals in tropical ice clouds in the West African monsoon simulated with a regional convection-permitting model. Atmospheric Chemistry and Physics, 2022, 22, 8863-8895.	1.9	7
254	A Lagrangian View of Seasonal Stratosphereâ€Troposphere Exchange. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	1
255	Increased DMSP availability during thermal stress influences DMSP-degrading bacteria in coral mucus. Frontiers in Marine Science, 0, 9, .	1.2	6

#	Article	IF	Citations
256	Global Empirical Models for Tropopause Height Determination. Remote Sensing, 2022, 14, 4303.	1.8	6
257	Chemical analysis of the Asian tropopause aerosol layer (ATAL) with emphasis on secondary aerosol particles using aircraft-based in situ aerosol mass spectrometry. Atmospheric Chemistry and Physics, 2022, 22, 13607-13630.	1.9	3
258	Measurements of Mesospheric Water Vapor From 1992 to 2021 at Three Stations From the Network for the Detection of Atmospheric Composition Change. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	3
259	Recent Trends in Transport of Surface Carbonaceous Aerosols to the Upperâ€Troposphereâ€Lowerâ€Stratosphere Linked to Expansion of the Asian Summer Monsoon Anticyclone. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	1
260	Impact of typhoon Soudelor on ozone and water vapor in the Asian monsoon anticyclone western Pacific mode. Atmospheric Science Letters, 0, , .	0.8	2
261	Spatiotemporal Distribution of CO in the UTLS Region in the Asian Summer Monsoon Season: Analysis of MLS Observations and CMIP6 Simulations. Remote Sensing, 2023, 15, 367.	1.8	0
263	Opposite Impacts of Interannual and Decadal Pacific Variability in the Extratropics. Geophysical Research Letters, 2023, 50, .	1.5	2
264	A fiber-optic distributed temperature sensor for continuous in situ profiling up to 2â€‰km beneath constant-altitude scientific balloons. Atmospheric Measurement Techniques, 2023, 16, 791-807.	1.2	2
265	Tropical Tropopause Layer Cloud Properties from Spaceborne Active Observations. Remote Sensing, 2023, 15, 1223.	1.8	1
266	Convective Impact on the Global Lower Stratospheric Water Vapor Budget. Journal of Geophysical Research D: Atmospheres, 2023, 128, .	1.2	7
267	The role of tropical upwelling in explaining discrepancies between recent modeled and observed lower-stratospheric ozone trends. Atmospheric Chemistry and Physics, 2023, 23, 3347-3361.	1.9	1
268	Three-Wavelength Approach for Aerosol-Cloud Discrimination in the SAGE III/ISS Aerosol Extinction dataset. Applied Optics, 0, , .	0.9	1
269	Determination of Cirrus Occurrence and Distribution Characteristics Over the Tibetan Plateau Based on the SWOP Campaign. Journal of Geophysical Research D: Atmospheres, 2023, 128, .	1.2	0