

Leonhard Pfister

List of Publications by Year in descending order

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43
papers

2,081
citations

218381

26
h-index

276539

41
g-index

45
all docs

45
docs citations

45
times ranked

1567
citing authors

#	ARTICLE	IF	CITATIONS
1	Diagnostics of Convective Transport Over the Tropical Western Pacific From Trajectory Analyses. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD034341.	1.2	5
2	Impact of Convectively Detained Ice Crystals on the Humidity of the Tropical Tropopause Layer in Boreal Winter. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD032894.	1.2	9
3	Erythral Radiation, Column Ozone, and the North American Monsoon. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD032283.	1.2	7
4	An Evaluation of the Representation of Tropical Tropopause Cirrus in the CESM/CARMA Model Using Satellite and Aircraft Observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 8659-8687.	1.2	4
5	Observational Evidence of Horizontal Transport-Driven Dehydration in the TTL. <i>Geophysical Research Letters</i> , 2019, 46, 7848-7856.	1.5	6
6	Water Vapor, Clouds, and Saturation in the Tropical Tropopause Layer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 3984-4003.	1.2	34
7	Ash Particles Detected in the Tropical Lower Stratosphere. <i>Geophysical Research Letters</i> , 2018, 45, 11,483.	1.5	4
8	Heterogeneous Ice Nucleation in the Tropical Tropopause Layer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 12,210.	1.2	16
9	Convective Hydration of the Upper Troposphere and Lower Stratosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 4583-4593.	1.2	39
10	Microphysical Properties of Tropical Tropopause Layer Cirrus. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 6053-6069.	1.2	35
11	Convective Influence on the Humidity and Clouds in the Tropical Tropopause Layer During Boreal Summer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 7576-7593.	1.2	52
12	The NASA Airborne Tropical Tropopause Experiment: High-Altitude Aircraft Measurements in the Tropical Western Pacific. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 129-143.	1.7	79
13	Small-Scale Wind Fluctuations in the Tropical Tropopause Layer from Aircraft Measurements: Occurrence, Nature, and Impact on Vertical Mixing. <i>Journals of the Atmospheric Sciences</i> , 2017, 74, 3847-3869.	0.6	23
14	Physical processes controlling the spatial distributions of relative humidity in the tropical tropopause layer over the Pacific. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 6094-6107.	1.2	20
15	The viability of trajectory analysis for diagnosing dynamical and chemical influences on ozone concentrations in the UTLS. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 6025-6042.	1.2	0
16	Air parcel trajectory dispersion near the tropical tropopause. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 3759-3775.	1.2	7
17	On the Susceptibility of Cold Tropical Cirrus to Ice Nuclei Abundance. <i>Journals of the Atmospheric Sciences</i> , 2016, 73, 2445-2464.	0.6	28
18	Ubiquitous influence of waves on tropical high cirrus clouds. <i>Geophysical Research Letters</i> , 2016, 43, 5895-5901.	1.5	42

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19	High-frequency gravity waves and homogeneous ice nucleation in tropical tropopause layer cirrus. <i>Geophysical Research Letters</i> , 2016, 43, 6629-6635.	1.5	39
20	Identifying robust transport features of the upper tropical troposphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 6758-6776.	1.2	7
21	Dynamical, convective, and microphysical control on wintertime distributions of water vapor and clouds in the tropical tropopause layer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 10,483.	1.2	53
22	Investigation of the transport processes controlling the geographic distribution of carbon monoxide at the tropical tropopause. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 2067-2086.	1.2	10
23	Analyzing dynamical circulations in the tropical tropopause layer through empirical predictions of cirrus cloud distributions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 2831-2845.	1.2	1
24	Dehydration in the tropical tropopause layer: A case study for model evaluation using aircraft observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 5299-5316.	1.2	28
25	Ice nucleation and dehydration in the Tropical Tropopause Layer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 2041-2046.	3.3	113
26	Physical processes controlling ice concentrations in synoptically forced, midlatitude cirrus. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 5348-5360.	1.2	51
27	Seasonal differences of vertical transport efficiency in the tropical tropopause layer: On the interplay between tropical deep convection, large-scale vertical ascent, and horizontal circulations. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	80
28	Physical processes controlling ice concentrations in cold cirrus near the tropical tropopause. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	33
29	Impact of radiative heating, wind shear, temperature variability, and microphysical processes on the structure and evolution of thin cirrus in the tropical tropopause layer. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	42
30	Ice nucleation and cloud microphysical properties in tropical tropopause layer cirrus. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 1369-1384.	1.9	107
31	Influence of convection on the water isotopic composition of the tropical tropopause layer and tropical stratosphere. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	55
32	Detailed structure of the tropical upper troposphere and lower stratosphere as revealed by balloon sonde observations of water vapor, ozone, temperature, and winds during the NASA TCSP and TC4 campaigns. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	46
33	A meteorological overview of the TC4 mission. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	35
34	Aerosol composition of the tropical upper troposphere. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 4363-4385.	1.9	159
35	Formation of large ($\approx 100 \mu\text{m}$) ice crystals near the tropical tropopause. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 1621-1633.	1.9	69
36	Aircraft measurements of microphysical properties of subvisible cirrus in the tropical tropopause layer. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 1609-1620.	1.9	126

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37	Implications of persistent ice supersaturation in cold cirrus for stratospheric water vapor. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	27
38	Transport and freeze-drying in the tropical tropopause layer. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	228
39	Aircraft observations of thin cirrus clouds near the tropical tropopause. <i>Journal of Geophysical Research</i> , 2001, 106, 9765-9786.	3.3	122
40	A conceptual model of the dehydration of air due to freeze-drying by optically thin, laminar cirrus rising slowly across the tropical tropopause. <i>Journal of Geophysical Research</i> , 2001, 106, 17237-17252.	3.3	101
41	High humidities and subvisible cirrus near the tropical tropopause. <i>Geophysical Research Letters</i> , 1999, 26, 2347-2350.	1.5	46
42	Mesoscale Disturbances in the Tropical Stratosphere Excited by Convection: Observations and Effects on the Stratospheric Momentum Budget. <i>Journals of the Atmospheric Sciences</i> , 1993, 50, 1058-1075.	0.6	92
43	Long-range transport of Asian emissions to the West Pacific tropical tropopause layer. <i>Journal of Atmospheric Chemistry</i> , 0, , 1.	1.4	1