Eric E Jensen

List of Publications by Year
in descending order

75 papers	4,779 citations	94269 37 h-index	106150 65 g-index
80 all docs	80 docs citations	80 times ranked	3142 citing authors

#	Article	IF	Citations
1	Clarifying the Dominant Sources and Mechanisms of Cirrus Cloud Formation. Science, 2013, 340, 1320-1324.	6.0	442
2	Physical processes in the tropical tropopause layer and their roles in a changing climate. Nature Geoscience, 2013, 6, 169-176.	5.4	284
3	Modeling coagulation among particles of different composition and size. Atmospheric Environment, 1994, 28, 1327-1338.	1.9	257
4	Transport and freeze-drying in the tropical tropopause layer. Journal of Geophysical Research, 2004, 109, .	3.3	228
5	Numerical simulations of the threeâ€dimensional distribution of meteoric dust in the mesosphere and upper stratosphere. Journal of Geophysical Research, 2008, 113, .	3.3	159
6	On the importance of small ice crystals in tropical anvil cirrus. Atmospheric Chemistry and Physics, 2009, 9, 5519-5537.	1.9	151
7	Dehydration of the upper troposphere and lower stratosphere by subvisible cirrus clouds near the tropical tropopause. Geophysical Research Letters, 1996, 23, 825-828.	1.5	141
8	Aircraft measurements of microphysical properties of subvisible cirrus in the tropical tropopause layer. Atmospheric Chemistry and Physics, 2008, 8, 1609-1620.	1.9	126
9	Aircraft observations of thin cirrus clouds near the tropical tropopause. Journal of Geophysical Research, 2001, 106, 9765-9786.	3.3	122
10	Planning, implementation, and first results of the Tropical Composition, Cloud and Climate Coupling Experiment (TC4). Journal of Geophysical Research, 2010, 115, .	3.3	120
11	Ice nucleation processes in upper tropospheric wave-clouds observed during SUCCESS. Geophysical Research Letters, 1998, 25, 1363-1366.	1.5	116
12	Ice nucleation and dehydration in the Tropical Tropopause Layer. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2041-2046.	3.3	113
13	Evidence for the Predominance of Mid-Tropospheric Aerosols as Subtropical Anvil Cloud Nuclei. Science, 2004, 304, 718-722.	6.0	112
14	Boundary layer sources for the Asian anticyclone: Regional contributions to a vertical conduit. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2560-2575.	1.2	111
15	Ice nucleation and cloud microphysical properties in tropical tropopause layer cirrus. Atmospheric Chemistry and Physics, 2010, 10, 1369-1384.	1.9	107
16	A conceptual model of the dehydration of air due to freeze-drying by optically thin, laminar cirrus rising slowly across the tropical tropopause. Journal of Geophysical Research, 2001, 106, 17237-17252.	3.3	101
17	Microphysical and radiative properties of tropical clouds investigated in TC4 and NAMMA. Journal of Geophysical Research, 2010, 115, .	3.3	93
18	Can overshooting convection dehydrate the tropical tropopause layer?. Journal of Geophysical Research, 2007, 112, .	3.3	92

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19	Ice nucleation in the upper troposphere: Sensitivity to aerosol number density, temperature, and cooling rate. Geophysical Research Letters, 1994, 21, 2019-2022.	1.5	83
20	State transformations and ice nucleation in amorphous (semi-)solid organic aerosol. Atmospheric Chemistry and Physics, 2013, 13, 5615-5628.	1.9	82
21	Seasonal differences of verticalâ€transport efficiency in the tropical tropopause layer: On the interplay between tropical deep convection, largeâ€scale vertical ascent, and horizontal circulations. Journal of Geophysical Research, 2012, 117, .	3.3	80
22	A microphysics guide to cirrus â€“ Part 2: Climatologies of clouds and humidity from observations. Atmospheric Chemistry and Physics, 2020, 20, 12569-12608.	1.9	80
23	The NASA Airborne Tropical Tropopause Experiment: High-Altitude Aircraft Measurements in the Tropical Western Pacific. Bulletin of the American Meteorological Society, 2017, 98, 129-143.	1.7	79
24	Global variations of HDO and HDO/H₂O ratios in the upper troposphere and lower stratosphere derived from ACEâ€FTS satellite measurements. Journal of Geophysical Research, 2012, 117, .	3.3	72
25	Spreading and growth of contrails in a sheared environment. Journal of Geophysical Research, 1998, 103, 31557-31567.	3.3	69
26	Formation of large (â‰ƒ100 Î¼m) ice crystals near the tropical tropopause. Atmospheric Chemistry and Physics, 2008, 8, 1621-1633.	1.9	69
27	In situ and lidar observations of tropopause subvisible cirrus clouds during TC4. Journal of Geophysical Research, 2010, 115, .	3.3	69
28	A Review of Ice Particle Shapes in Cirrus formed In Situ and in Anvils. Journal of Geophysical Research D: Atmospheres, 2019, 124, 10049-10090.	1.2	54
29	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
30	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
31	Physical processes controlling ice concentrations in synoptically forced, midlatitude cirrus. Journal of Geophysical Research D: Atmospheres, 2013, 118, 5348-5360.	1.2	51
32	Persisting volcanic ash particles impact stratospheric SO2 lifetime and aerosol optical properties. Nature Communications, 2020, 11, 4526.	5.8	51
33	High humidities and subvisible cirrus near the tropical tropopause. Geophysical Research Letters, 1999, 26, 2347-2350.	1.5	46
34	Impact of radiative heating, wind shear, temperature variability, and microphysical processes on the structure and evolution of thin cirrus in the tropical tropopause layer. Journal of Geophysical Research, 2011, 116, .	3.3	42
35	Ubiquitous influence of waves on tropical high cirrus clouds. Geophysical Research Letters, 2016, 43, 5895-5901.	1.5	42
36	Highâ€frequency gravity waves and homogeneous ice nucleation in tropical tropopause layer cirrus. Geophysical Research Letters, 2016, 43, 6629-6635.	1.5	39

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37	Convective Hydration of the Upper Troposphere and Lower Stratosphere. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4583-4593.	1.2	39
38	Dominant role of mineral dust in cirrus cloud formation revealed by global-scale measurements. Nature Geoscience, 2022, 15, 177-183.	5.4	39
39	Formation of a tropopause cirrus layer observed over Florida during CRYSTAL-FACE. Journal of Geophysical Research, 2005, 110, .	3.3	38
40	Role of deep convection in establishing the isotopic composition of water vapor in the tropical transition layer. Geophysical Research Letters, 2006, 33, .	1.5	37
41	Cloud formation, convection, and stratospheric dehydration. Earth and Space Science, 2014, 1, 1-17.	1.1	35
42	Microphysical Properties of Tropical Tropopause Layer Cirrus. Journal of Geophysical Research D: Atmospheres, 2018, 123, 6053-6069.	1.2	35
43	Water Vapor, Clouds, and Saturation in the Tropical Tropopause Layer. Journal of Geophysical Research D: Atmospheres, 2019, 124, 3984-4003.	1.2	34
44	Physical processes controlling ice concentrations in cold cirrus near the tropical tropopause. Journal of Geophysical Research, 2012, 117, .	3.3	33
45	Gravity waves amplify upper tropospheric dehydration by clouds. Earth and Space Science, 2015, 2, 485-500.	1.1	30
46	Dehydration in the tropical tropopause layer: A case study for model evaluation using aircraft observations. Journal of Geophysical Research D: Atmospheres, 2014, 119, 5299-5316.	1.2	28
47	On the Susceptibility of Cold Tropical Cirrus to Ice Nuclei Abundance. Journals of the Atmospheric Sciences, 2016, 73, 2445-2464.	0.6	28
48	Implications of persistent ice supersaturation in cold cirrus for stratospheric water vapor. Geophysical Research Letters, 2005, 32, .	1.5	27
49	Cirrus cloud-temperature interactions in the tropical tropopause layer: a case study. Atmospheric Chemistry and Physics, 2011, 11, 10085-10095.	1.9	27
50	Observational constraints on the efficiency of dehydration mechanisms in the tropical tropopause layer. Geophysical Research Letters, 2016, 43, 2912-2918.	1.5	27
51	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
52	Homogeneous aerosol freezing in the tops of high-altitude tropical cumulonimbus clouds. Geophysical Research Letters, 2006, 33, .	1.5	23
53	Small-Scale Wind Fluctuations in the Tropical Tropopause Layer from Aircraft Measurements: Occurrence, Nature, and Impact on Vertical Mixing. Journals of the Atmospheric Sciences, 2017, 74, 3847-3869.	0.6	23
54	Impact of gravity waves on the motion and distribution of atmospheric ice particles. Atmospheric Chemistry and Physics, 2018, 18, 10799-10823.	1.9	23

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55	Gravity wave spectra in the lower stratosphere diagnosed from project loon balloon trajectories. Journal of Geophysical Research D: Atmospheres, 2017, 122, 8517-8524.	1.2	22
56	Assessment of Observational Evidence for Direct Convective Hydration of the Lower Stratosphere. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032793.	1.2	21
57	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
58	Physical processes controlling the spatial distributions of relative humidity in the tropical tropopause layer over the Pacific. Journal of Geophysical Research D: Atmospheres, 2017, 122, 6094-6107.	1.2	20
59	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
60	The Life Cycles of Ice Crystals Detrained From the Tops of Deep Convection. Journal of Geophysical Research D: Atmospheres, 2018, 123, 9624-9634.	1.2	17
61	Heterogeneous Ice Nucleation in the Tropical Tropopause Layer. Journal of Geophysical Research D: Atmospheres, 2018, 123, 12,210.	1.2	16
62	The Impact of Mesoscale Gravity Waves on Homogeneous Ice Nucleation in Cirrus Clouds. Geophysical Research Letters, 2019, 46, 5556-5565.	1.5	15
63	Studies on the Competition Between Homogeneous and Heterogeneous Ice Nucleation in Cirrus Formation. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	15
64	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
65	Microscale characteristics of homogeneous freezing events in cirrus clouds. Geophysical Research Letters, 2017, 44, 2027-2034.	1.5	10
66	Influence of convection on stratospheric water vapor in the North American monsoon region. Atmospheric Chemistry and Physics, 2020, 20, 12153-12161.	1.9	10
67	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
68	Air parcel trajectory dispersion near the tropical tropopause. Journal of Geophysical Research D: Atmospheres, 2016, 121, 3759-3775.	1.2	7
69	Observational Evidence of Horizontal Transportâ€Driven Dehydration in the TTL. Geophysical Research Letters, 2019, 46, 7848-7856.	1.5	6
70	Ash Particles Detected in the Tropical Lower Stratosphere. Geophysical Research Letters, 2018, 45, 11,483.	1.5	4
71	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
72	Cloud and Aerosol Distributions From SAGE III/ISS Observations. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035550.	1.2	4

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73	Unprecedented Observations of a Nascent In Situ Cirrus in the Tropical Tropopause Layer. Geophysical Research Letters, 2021, 48, e2020GL090936.	1.5	3
74	On the Statistical Distribution of Total Water in Cirrus Clouds. Geophysical Research Letters, 2018, 45, 9963-9971.	1.5	2
75	Analyzing dynamical circulations in the tropical tropopause layer through empirical predictions of cirrus cloud distributions. Journal of Geophysical Research D: Atmospheres, 2014, 119, 2831-2845.	1.2	1