Ralf Weigel

List of Publications by Year
in descending order

37 papers	1,900 citations	304701 22 h-index	330122 37 g-index
66 all docs	66 docs citations	66 times ranked	2533 citing authors

#	Article	IF	Citations
1	Aircraft-based observation of meteoric material in lower-stratospheric aerosol particles between 15 and 68Â°â€‰N. Atmospheric Chemistry and Physics, 2021, 21, 989-1013.	4.9	18
2	In situ observation of new particle formation (NPF) in the tropical tropopause layer of the 2017Â Asian monsoon anticyclone â€“ PartÂ 1: Summary of StratoClim results. Atmospheric Chemistry and Physics, 2021, 21, 11689-11722.	4.9	11
3	Automatic shape detection of ice crystals. Journal of Computational Science, 2021, 54, 101429.	2.9	2
4	In situ observation of new particle formation (NPF) in the tropical tropopause layer of the 2017 Asian monsoon anticyclone â€“ Part 2: NPF inside ice clouds. Atmospheric Chemistry and Physics, 2021, 21, 13455-13481.	4.9	5
5	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.	4.9	7
6	Comparison of aircraft measurements during GoAmazon2014/5 and ACRIDICON-CHUVA. Atmospheric Measurement Techniques, 2020, 13, 661-684.	3.1	12
7	The challenge of simulating the sensitivity of the Amazonian cloud microstructure to cloud condensation nuclei number concentrations. Atmospheric Chemistry and Physics, 2020, 20, 1591-1605.	4.9	4
8	Reappraising the appropriate calculation of a common meteorological quantity: potential temperature. Atmospheric Chemistry and Physics, 2020, 20, 15585-15616.	4.9	7
9	Ammonium nitrate particles formed in upper troposphere from ground ammonia sources during Asian monsoons. Nature Geoscience, 2019, 12, 608-612.	12.9	95
10	Comparing airborne and satellite retrievals of cloud optical thickness and particle effective radius using a spectral radiance ratio technique: two case studies for cirrus and deep convective clouds. Atmospheric Chemistry and Physics, 2018, 18, 4439-4462.	4.9	11
11	ML-CIRRUS: The Airborne Experiment on Natural Cirrus and Contrail Cirrus with the High-Altitude Long-Range Research Aircraft HALO. Bulletin of the American Meteorological Society, 2017, 98, 271-288.	3.3	107
12	Sub-micrometer refractory carbonaceous particles in the polar stratosphere. Atmospheric Chemistry and Physics, 2017, 17, 12475-12493.	4.9	9
13	Further evidence for CCN aerosol concentrations determining the height of warm rain and ice initiation in convective clouds over the Amazon basin. Atmospheric Chemistry and Physics, 2017, 17, 14433-14456.	4.9	58
14	Long-lived contrails and convective cirrus above the tropical tropopause. Atmospheric Chemistry and Physics, 2017, 17, 2311-2346.	4.9	8
15	Comparing parameterized versus measured microphysical properties of tropical convective cloud bases during the ACRIDICONâ€“CHUVA campaign. Atmospheric Chemistry and Physics, 2017, 17, 7365-7386.	4.9	30
16	Thermodynamic correction of particle concentrations measured by underwing probes on fast-flying aircraft. Atmospheric Measurement Techniques, 2016, 9, 5135-5162.	3.1	39
17	Stratospheric aerosol-Observations, processes, and impact on climate. Reviews of Geophysics, 2016, 54, 278-335.	23.0	265
18	Porous aerosol in degassing plumes of Mt. Etna and Mt. Stromboli. Atmospheric Chemistry and Physics, 2016, 16, 11883-11897.	4.9	10

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19	Chemical analysis of refractory stratospheric aerosol particles collected within the arctic vortex and inside polar stratospheric clouds. Atmospheric Chemistry and Physics, 2016, 16, 8405-8421.	4.9	26
20	ACRIDICONâ€“CHUVA Campaign: Studying Tropical Deep Convective Clouds and Precipitation over Amazonia Using the New German Research Aircraft HALO. Bulletin of the American Meteorological Society, 2016, 97, 1885-1908.	3.3	124
21	Arctic low-level boundary layer clouds: in situ measurements and simulations of mono- and bimodal supercooled droplet size distributions at the top layer of liquid phase clouds. Atmospheric Chemistry and Physics, 2015, 15, 617-631.	4.9	49
22	Microphysical properties of synoptic-scale polar stratospheric clouds: in situ measurements of unexpectedly large HNO₃-containing particles in the Arctic vortex. Atmospheric Chemistry and Physics, 2014, 14, 10785-10801.	4.9	56
23	Enhancements of the refractory submicron aerosol fraction in the Arctic polar vortex: feature or exception?. Atmospheric Chemistry and Physics, 2014, 14, 12319-12342.	4.9	29
24	Tropical deep convective life cycle: Cb-anvil cloud microphysics from high-altitude aircraft observations. Atmospheric Chemistry and Physics, 2014, 14, 13223-13240.	4.9	19
25	Overview of aerosol properties associated with air masses sampled by the ATR-42 during the EUCAARI campaign (2008). Atmospheric Chemistry and Physics, 2013, 13, 4877-4893.	4.9	14
26	Reconciliation of essential process parameters for an enhanced predictability of Arctic stratospheric ozone loss and its climate interactions (RECONCILE): activities and results. Atmospheric Chemistry and Physics, 2013, 13, 9233-9268.	4.9	88
27	ClOOCl photolysis at high solar zenith angles: analysis of the RECONCILE self-match flight. Atmospheric Chemistry and Physics, 2012, 12, 1353-1365.	4.9	32
28	Seasonal variations in aerosol particle composition at the puy-de-DÃ´me research station in France. Atmospheric Chemistry and Physics, 2011, 11, 13047-13059.	4.9	78
29	Evidence for heterogeneous chlorine activation in the tropical UTLS. Atmospheric Chemistry and Physics, 2011, 11, 241-256.	4.9	33
30	In situ measurements of tropical cloud properties in the West African Monsoon: upper tropospheric ice clouds, Mesoscale Convective System outflow, and subvisual cirrus. Atmospheric Chemistry and Physics, 2011, 11, 5569-5590.	4.9	59
31	In situ observations of new particle formation in the tropical upper troposphere: the role of clouds and the nucleation mechanism. Atmospheric Chemistry and Physics, 2011, 11, 9983-10010.	4.9	66
32	Aerosols in the tropical and subtropical UT/LS: in-situ measurements of submicron particle abundance and volatility. Atmospheric Chemistry and Physics, 2010, 10, 5573-5592.	4.9	59
33	New particle formation events measured on board the ATR-42 aircraft during the EUCAARI campaign. Atmospheric Chemistry and Physics, 2010, 10, 6721-6735.	4.9	65
34	Experimental characterization of the COndensation PArticle counting System for high altitude aircraft-borne application. Atmospheric Measurement Techniques, 2009, 2, 243-258.	3.1	47
35	Intercomparison study of six HTDMAs: results and recommendations. Atmospheric Measurement Techniques, 2009, 2, 363-378.	3.1	125
36	Evidence for ice particles in the tropical stratosphere from in-situ measurements. Atmospheric Chemistry and Physics, 2009, 9, 6775-6792.	4.9	100

#	Article	IF	Citations
37	Observations of meteoric material and implications for aerosol nucleation in the winter Arctic lower stratosphere derived from in situ particle measurements. Atmospheric Chemistry and Physics, 2005, 5, 3053-3069.	4.9	113