

Andreas Volz-Thomas

List of Publications by Year in descending order

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82
papers

6,154
citations

70961

41
h-index

76769

74
g-index

83
all docs

83
docs citations

83
times ranked

4188
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluation of the Montsouris series of ozone measurements made in the nineteenth century. <i>Nature</i> , 1988, 332, 240-242.	13.7	739
2	An improved fast-response vacuum-UV resonance fluorescence CO instrument. <i>Journal of Geophysical Research</i> , 1999, 104, 1699-1704.	3.3	322
3	OH formation by HONO photolysis during the BERLIOZ experiment. <i>Journal of Geophysical Research</i> , 2003, 108, PHO 3-1.	3.3	265
4	Long-term changes in lower tropospheric baseline ozone concentrations at northern mid-latitudes. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 11485-11504.	1.9	260
5	Trends in surface ozone concentrations at Arosa (Switzerland). <i>Atmospheric Environment</i> , 1994, 28, 75-87.	1.9	226
6	Seasonal and latitudinal variation of ^{14}CO and the tropospheric concentration of OH radicals. <i>Journal of Geophysical Research</i> , 1981, 86, 5163-5171.	3.3	189
7	OH Radicals in the lower troposphere. <i>Geophysical Research Letters</i> , 1976, 3, 466-468.	1.5	167
8	Long-term changes in lower tropospheric baseline ozone concentrations: Comparing chemistry-climate models and observations at northern midlatitudes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 5719-5736.	1.2	149
9	A photoelectric detector for the measurement of photolysis frequencies of ozone and other atmospheric molecules. <i>Journal of Atmospheric Chemistry</i> , 1989, 8, 203-227.	1.4	147
10	Airborne intercomparison of vacuum ultraviolet fluorescence and tunable diode laser absorption measurements of tropospheric carbon monoxide. <i>Journal of Geophysical Research</i> , 2000, 105, 24251-24261.	3.3	141
11	Simultaneous measurements of peroxy and nitrate radicals at Schauinsland. <i>Journal of Atmospheric Chemistry</i> , 1993, 16, 313-335.	1.4	137
12	On the interaction of isotopic exchange processes with photochemical reactions in atmospheric oxides of nitrogen. <i>Journal of Geophysical Research</i> , 1993, 98, 14791-14796.	3.3	129
13	Global-scale atmosphere monitoring by in-service aircraft – current achievements and future prospects of the European Research Infrastructure IAGOS. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 67, 28452.	0.8	118
14	Measurements of tropospheric OH concentrations: A comparison of field data with model predictions. <i>Journal of Atmospheric Chemistry</i> , 1987, 5, 185-216.	1.4	116
15	Climatologies of NO _x and NO _y : A comparison of data and models. <i>Atmospheric Environment</i> , 1997, 31, 1851-1904.	1.9	111
16	Trends in stratospheric and free tropospheric ozone. <i>Journal of Geophysical Research</i> , 1997, 102, 1571-1590.	3.3	106
17	Simultaneously measured vertical profiles of H ₂ , CH ₄ , CO, N ₂ O, CFCl ₃ , and CF ₂ Cl ₂ in the mid-latitude stratosphere and troposphere. <i>Journal of Geophysical Research</i> , 1979, 84, 3149-3154.	3.3	100
18	Temporal variability of summer-time ozone and aerosols in the free troposphere over the eastern North Atlantic. <i>Geophysical Research Letters</i> , 1995, 22, 2925-2928.	1.5	100

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19	Calibration source for peroxy radicals with built-in actinometry using H ₂ O and O ₂ photolysis at 185 nm. <i>Journal of Geophysical Research</i> , 1995, 100, 18811.	3.3	96
20	Airborne measurements of the photolysis frequency of NO ₂ . <i>Journal of Geophysical Research</i> , 1996, 101, 18613-18627.	3.3	95
21	Lower tropospheric ozone at northern midlatitudes: Changing seasonal cycle. <i>Geophysical Research Letters</i> , 2013, 40, 1631-1636.	1.5	95
22	Measurements of nitric oxide between 0–12 km altitude and 67°N to 60°S latitude obtained during STRATOS III. <i>Journal of Geophysical Research</i> , 1988, 93, 15831-15849.	3.3	94
23	The vertical distribution of stable trace gases at mid-latitudes. <i>Journal of Geophysical Research</i> , 1981, 86, 5179-5184.	3.3	93
24	Peroxy radicals during BERLIOZ at Pabstthum: Measurements, radical budgets and ozone production. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	93
25	Nighttime formation of peroxy and hydroxyl radicals during the BERLIOZ campaign: Observations and modeling studies. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	91
26	Measurements of alkyl nitrates in rural and polluted air masses. <i>Atmospheric Environment Part A General Topics</i> , 1991, 25, 1951-1960.	1.3	89
27	Chemical air mass differences near fronts. <i>Journal of Geophysical Research</i> , 1998, 103, 13413-13434.	3.3	83
28	An optimized chemiluminescence detector for tropospheric NO measurements. <i>Journal of Atmospheric Chemistry</i> , 1985, 2, 287-306.	1.4	80
29	Numerical analysis of ESR spectra from atmospheric samples. <i>Journal of Atmospheric Chemistry</i> , 1990, 11, 271-297.	1.4	79
30	Fast response resonance fluorescence CO measurements aboard the C-130: Instrument characterization and measurements made during North Atlantic Regional Experiment 1993. <i>Journal of Geophysical Research</i> , 1996, 101, 29229-29238.	3.3	79
31	Interhemispheric asymmetry in OH abundance inferred from measurements of atmospheric ¹⁴ CO. <i>Nature</i> , 1992, 356, 50-52.	13.7	76
32	Hydrogen peroxide, organic peroxides, carbonyl compounds, and organic acids measured at Pabstthum during BERLIOZ. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	72
33	Long-term measurements of alkyl nitrates in southern Germany: 1. General behavior and seasonal and diurnal variation. <i>Journal of Geophysical Research</i> , 1998, 103, 5729-5746.	3.3	66
34	Temporal variations in formaldehyde, acetaldehyde and acetone and budget of formaldehyde at a rural site in Southern Germany. <i>Atmospheric Environment</i> , 1996, 30, 3667-3676.	1.9	65
35	Examination of the atmospheric conditions associated with high and low summer ozone levels in the lower troposphere over the eastern Mediterranean. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 10339-10352.	1.9	61
36	Instrumentation on commercial aircraft for monitoring the atmospheric composition on a global scale: the IAGOS system, technical overview of ozone and carbon monoxide measurements. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 67, 27791.	0.8	61

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37	Influence of valley winds on transport and dispersion of airborne pollutants in the Freiburg-Schauinsland area. <i>Journal of Geophysical Research</i> , 2000, 105, 1585-1597.	3.3	60
38	On the Exchange of NO ₃ Radicals with Aqueous Solutions: Solubility and Sticking Coefficient. <i>Journal of Atmospheric Chemistry</i> , 1998, 29, 17-43.	1.4	59
39	Inorganic trace gases and peroxy radicals during BERLIOZ at Pabstthum: An investigation of the photostationary state of NO _x and O ₃ . <i>Journal of Geophysical Research</i> , 2003, 108, PHO 4-1.	3.3	52
40	North Atlantic Regional Experiment 1993 Summer Intensive: Foreword. <i>Journal of Geophysical Research</i> , 1996, 101, 28869-28875.	3.3	47
41	Representation of tropical deep convection in atmospheric models – Part 2: Tracer transport. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 8103-8131.	1.9	46
42	Formation of hydroxyl and hydroperoxy radicals in the gas-phase ozonolysis of ethene. <i>Chemical Physics Letters</i> , 1999, 301, 559-564.	1.2	45
43	Title is missing!. <i>Journal of Atmospheric Chemistry</i> , 1997, 28, 263-282.	1.4	44
44	Preparation of organic nitrates from alcohols and N ₂ O ₅ for species identification in atmospheric samples. <i>Journal of Atmospheric Chemistry</i> , 1993, 16, 349-359.	1.4	40
45	Carbon dioxide uptake of a forested region in southwest France derived from airborne CO ₂ and CO measurements in a quasi-Lagrangian experiment. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	40
46	Long-Term Measurements of Light Hydrocarbons (C ₂ –C ₅) at Schauinsland (Black Forest). <i>Journal of Atmospheric Chemistry</i> , 1997, 28, 135-171.	1.4	36
47	Trace gas measurements during the Oxidizing Capacity of the Tropospheric Atmosphere campaign 1993 at Izaña. <i>Journal of Geophysical Research</i> , 1998, 103, 13505-13518.	3.3	36
48	Title is missing!. <i>Journal of Atmospheric Chemistry</i> , 2002, 42, 465-492.	1.4	36
49	The backscatter cloud probe – a compact low-profile autonomous optical spectrometer. <i>Atmospheric Measurement Techniques</i> , 2014, 7, 1443-1457.	1.2	31
50	A resonance-fluorescence instrument for the in-situ measurement of atmospheric carbon monoxide. <i>Journal of Atmospheric Chemistry</i> , 1985, 2, 345-357.	1.4	30
51	On the budget of hydroxyl radicals at Schauinsland during the Schauinsland Ozone Precursor Experiment (SLOPE96). <i>Journal of Geophysical Research</i> , 2000, 105, 1611-1622.	3.3	30
52	Title is missing!. <i>Journal of Atmospheric Chemistry</i> , 2002, 42, 289-321.	1.4	30
53	Quality Assurance of Hydrocarbon Measurements for the German Tropospheric Research Focus (TFS). <i>Journal of Atmospheric Chemistry</i> , 2002, 42, 255-279.	1.4	30
54	Hydrocarbon measurements at Pabstthum during the BERLIOZ campaign and modeling of free radicals. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	30

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55	Measurements of trace gases and photolysis frequencies during SLOPE96 and a coarse estimate of the local OH concentration from HNO ₃ formation. <i>Journal of Geophysical Research</i> , 2000, 105, 1563-1583.	3.3	29
56	Photochemical box modeling of long-range transport from North America to Tenerife during the North Atlantic Regional Experiment (NARE) 1993. <i>Journal of Geophysical Research</i> , 1998, 103, 13477-13488.	3.3	26
57	Characterization of a commercial gas chromatography-flame ionization detection system for the in situ determination of C ₅ -C ₁₀ hydrocarbons in ambient air. <i>Journal of Chromatography A</i> , 2000, 878, 215-234.	1.8	25
58	Climatology of Ozone, PAN, CO, and NMHC in the Free Troposphere Over the Southern North Atlantic. <i>Journal of Atmospheric Chemistry</i> , 1997, 28, 245-262.	1.4	23
59	Intercomparison of NO, NO ₂ , NO _y , O ₃ , and RO _x measurements during the Oxidizing Capacity of the Tropospheric Atmosphere (OCTA) campaign 1993 at Izaña. <i>Journal of Geophysical Research</i> , 1998, 103, 13615-13634.	3.3	23
60	The geographical distribution of meteorological parameters associated with high and low summer ozone levels in the lower troposphere and the boundary layer over the eastern Mediterranean (Cairo) <i>Tj ETQq0 0 0 qBT / Overdock 10 Tf</i>		
61	Introduction to Special Section: Photochemistry Experiment in BERLIOZ. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	22
62	Composition of the TTL over Darwin: local mixing or long-range transport?. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 7725-7736.	1.9	20
63	Evaluation of ACE-FTS and OSIRIS Satellite retrievals of ozone and nitric acid in the tropical upper troposphere: Application to ozone production efficiency. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	20
64	Cloud-resolving chemistry simulation of a Hector thunderstorm. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 2757-2777.	1.9	20
65	A Database for Volatile Organic Compounds. <i>Journal of Atmospheric Chemistry</i> , 2002, 42, 281-286.	1.4	19
66	Quality Assurance in TFS for Inorganic Compounds. <i>Journal of Atmospheric Chemistry</i> , 2002, 42, 235-253.	1.4	19
67	Depth profiles of chlorofluoromethanes in the Norwegian sea. <i>Pure and Applied Geophysics</i> , 1978, 116, 575-582.	0.8	18
68	Schauinsland Ozone Precursor Experiment (SLOPE96): Scientific background and main results. <i>Journal of Geophysical Research</i> , 2000, 105, 1553-1561.	3.3	18
69	An idealized two-dimensional approach to study the impact of the West African monsoon on the meridional gradient of tropospheric ozone. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	18
70	An In-Flight Calibration Method for Near-Real-Time Humidity Measurements with the Airborne MOZAIC Sensor. <i>Journal of Atmospheric and Oceanic Technology</i> , 2008, 25, 656-666.	0.5	18
71	Aerosol observations and growth rates downwind of the anvil of a deep tropical thunderstorm. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 6157-6172.	1.9	17
72	The first regular measurements of ozone, carbon monoxide and water vapour in the Pacific UTLS by IAGOS. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 67, 28385.	0.8	13

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73	The ACCENT-protocol: a framework for benchmarking and model evaluation. <i>Geoscientific Model Development</i> , 2012, 5, 611-618.	1.3	12
74	Properties of small cirrus ice crystals from commercial aircraft measurements and implications for flight operations. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2015, 67, 27876.	0.8	12
75	The vertical distribution of CFM and related species in the stratosphere. <i>Pure and Applied Geophysics</i> , 1978, 116, 545-553.	0.8	10
76	Lightning-produced NO _x during the Northern Australian monsoon; results from the ACTIVE campaign. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 7419-7429.	1.9	10
77	Preface [to special section on North Atlantic Regional Experiment (NARE II)]. <i>Journal of Geophysical Research</i> , 1998, 103, 13353-13355.	3.3	9
78	Lightning NO _x influence on large-scale NO _y and O ₃ plumes observed over the northern mid-latitudes. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 66, 25544.	0.8	8
79	Climatology of NO _y in the troposphere and UT/LS from measurements made in MOZAIC. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 67, 28793.	0.8	4
80	Comment [on "Improved airborne measurements of OH in the atmosphere using the technique of laser-induced fluorescence" by C. C. Wang, L. I. Davis, Jr., P. M. Selzer, and R. Munoz]. <i>Journal of Geophysical Research</i> , 1981, 86, 12155-12155.	3.3	3
81	An Overview of Tropospheric Ozone Research. , 1997, , 1-34.		3
82	TOR: An Overview of Tropospheric Ozone Research. , 2000, , 202-238.		0