Johannes Schneider

List of Publications by Year
in descending order

110 papers	13,915 citations	47004 47 h-index	25787 108 g-index
173 all docs	173 docs citations	173 times ranked	8620 citing authors

#	Article	IF	Citations
1	Evolution of Organic Aerosols in the Atmosphere. Science, 2009, 326, 1525-1529.	12.6	3,374
2	Ubiquity and dominance of oxygenated species in organic aerosols in anthropogenicallyâ€influenced Northern Hemisphere midlatitudes. Geophysical Research Letters, 2007, 34, .	4.0	1,773
3	Size Matters More Than Chemistry for Cloud-Nucleating Ability of Aerosol Particles. Science, 2006, 312, 1375-1378.	12.6	871
4	Rainforest Aerosols as Biogenic Nuclei of Clouds and Precipitation in the Amazon. Science, 2010, 329, 1513-1516.	12.6	541
5	Wintertime aerosol chemical composition and source apportionment of the organic fraction in the metropolitan area of Paris. Atmospheric Chemistry and Physics, 2013, 13, 961-981.	4.9	391
6	Enhanced Role of Transition Metal Ion Catalysis During In-Cloud Oxidation of SO ₂. Science, 2013, 340, 727-730.	12.6	286
7	Transport of boreal forest fire emissions from Canada to Europe. Journal of Geophysical Research, 2001, 106, 22887-22906.	3.3	283
8	Characterization of aerosol chemical composition with aerosol mass spectrometry in Central Europe: an overview. Atmospheric Chemistry and Physics, 2010, 10, 10453-10471.	4.9	261
9	Mass spectrometric analysis and aerodynamic properties of various types of combustion-related aerosol particles. International Journal of Mass Spectrometry, 2006, 258, 37-49.	1.5	260
10	The effect of organic coating on the heterogeneous ice nucleation efficiency of mineral dust aerosols. Environmental Research Letters, 2008, 3, 025007.	5.2	230
11	Nucleation Particles in Diesel Exhaust:â€‰ Composition Inferred from In Situ Mass Spectrometric Analysis. Environmental Science & Technology, 2005, 39, 6153-6161.	10.0	203
12	The ToF-ACSM: a portable aerosol chemical speciation monitor with TOFMS detection. Atmospheric Measurement Techniques, 2013, 6, 3225-3241.	3.1	184
13	Aerosol lidar intercomparison in the framework of the EARLINET project 2 Aerosol backscatter algorithms. Applied Optics, 2004, 43, 977.	2.1	178
14	Irreversible loss of ice nucleation active sites in mineral dust particles caused by sulphuric acid condensation. Atmospheric Chemistry and Physics, 2010, 10, 11471-11487.	4.9	175
15	Mass spectral characterization of submicron biogenic organic particles in the Amazon Basin. Geophysical Research Letters, 2009, 36, .	4.0	171
16	An overview of the Amazonian Aerosol Characterization Experiment 2008 (AMAZE-08). Atmospheric Chemistry and Physics, 2010, 10, 11415-11438.	4.9	170
17	The Arctic Cloud Puzzle: Using ACLOUD/PASCAL Multiplatform Observations to Unravel the Role of Clouds and Aerosol Particles in Arctic Amplification. Bulletin of the American Meteorological Society, 2019, 100, 841-871.	3.3	145
18	Real-time sensing of bioaerosols: Review and current perspectives. Aerosol Science and Technology, 2020, 54, 465-495.	3.1	144

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19	Heterogeneous freezing of droplets with immersed mineral dust particles â€“ measurements and parameterization. Atmospheric Chemistry and Physics, 2010, 10, 3601-3614.	4.9	138
20	Enhanced organic mass fraction and decreased hygroscopicity of cloud condensation nuclei (CCN) during new particle formation events. Geophysical Research Letters, 2010, 37, .	4.0	138
21	Overview paper: New insights into aerosol and climate in the Arctic. Atmospheric Chemistry and Physics, 2019, 19, 2527-2560.	4.9	134
22	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
23	Acetone in the upper troposphere and lower stratosphere: Impact on trace gases and aerosols. Geophysical Research Letters, 1997, 24, 3017-3020.	4.0	111
24	Growth of nucleation mode particles in the summertime Arctic: a case study. Atmospheric Chemistry and Physics, 2016, 16, 7663-7679.	4.9	111
25	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
26	Formation of organic aerosol in the Paris region during the MEGAPOLI summer campaign: evaluation of the volatility-basis-set approach within the CHIMERE model. Atmospheric Chemistry and Physics, 2013, 13, 5767-5790.	4.9	105
27	Aerosol characteristics and particle production in the upper troposphere over the Amazon Basin. Atmospheric Chemistry and Physics, 2018, 18, 921-961.	4.9	105
28	Aerosol particle measurements at three stationary sites in the megacity of Paris during summer 2009: meteorology and air mass origin dominate aerosol particle composition and size distribution. Atmospheric Chemistry and Physics, 2013, 13, 933-959.	4.9	101
29	Volatile and intermediate volatility organic compounds in suburban Paris: variability, origin and importance for SOA formation. Atmospheric Chemistry and Physics, 2014, 14, 10439-10464.	4.9	97
30	Effects of 20â€“100â€¯nm particles on liquid clouds in the clean summertime Arctic. Atmospheric Chemistry and Physics, 2016, 16, 11107-11124.	4.9	94
31	In-situ observations of young contrails â€“ overview and selected results from the CONCERT campaign. Atmospheric Chemistry and Physics, 2010, 10, 9039-9056.	4.9	93
32	In situ, satellite measurement and model evidence on the dominant regional contribution to fine particulate matter levels in the Paris megacity. Atmospheric Chemistry and Physics, 2015, 15, 9577-9591.	4.9	92
33	Observation of upper tropospheric sulfur dioxide- and acetone-pollution: Potential implications for hydroxyl radicaland aerosol formation. Geophysical Research Letters, 1997, 24, 57-60.	4.0	88
34	Gaseous (DMS, MSA, SO₂,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 152 Td (H<sub&am particulate (sulfate and methanesulfonate) sulfur species over the northeastern coast of Crete. Atmospheric Chemistry and Physics, 2003, 3, 1871-1886.	4.9	86
35	Counterflow Virtual Impactor Based Collection of Small Ice Particles in Mixed-Phase Clouds for the Physico-Chemical Characterization of Tropospheric Ice Nuclei: Sampler Description and First Case Study. Aerosol Science and Technology, 2007, 41, 848-864.	3.1	83
36	Sub-Antarctic marine aerosol: dominant contributions from biogenic sources. Atmospheric Chemistry and Physics, 2013, 13, 8669-8694.	4.9	82

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37	Clouds and aerosols in Puerto Rico â€“ a new evaluation. Atmospheric Chemistry and Physics, 2008, 8, 1293-1309.	4.9	72
38	Composition and mixing state of the urban background aerosol in the Rhein-Main area (Germany). Atmospheric Environment, 2007, 41, 6102-6115.	4.1	71
39	Experimental study of the role of physicochemical surface processing on the IN ability of mineral dust particles. Atmospheric Chemistry and Physics, 2011, 11, 11131-11144.	4.9	70
40	Design of a mobile aerosol research laboratory and data processing tools for effective stationary and mobile field measurements. Atmospheric Measurement Techniques, 2012, 5, 1443-1457.	3.1	65
41	Summertime observations of elevated levels of ultrafine particles in the high Arctic marine boundary layer. Atmospheric Chemistry and Physics, 2017, 17, 5515-5535.	4.9	62
42	Surface modification of mineral dust particles by sulphuric acid processing: implications for ice nucleation abilities. Atmospheric Chemistry and Physics, 2011, 11, 7839-7858.	4.9	60
43	Mass-spectrometric identification of primary biological particle markers and application to pristine submicron aerosol measurements in Amazonia. Atmospheric Chemistry and Physics, 2011, 11, 11415-11429.	4.9	59
44	Laboratory-generated mixtures of mineral dust particles with biological substances: characterization of the particle mixing state and immersion freezing behavior. Atmospheric Chemistry and Physics, 2016, 16, 5531-5543.	4.9	58
45	Cloud water composition during HCCT-2010: Scavenging efficiencies, solute concentrations, and droplet size dependence of inorganic ions and dissolved organic carbon. Atmospheric Chemistry and Physics, 2016, 16, 3185-3205.	4.9	57
46	Evidence for marine biogenic influence on summertime Arctic aerosol. Geophysical Research Letters, 2017, 44, 6460-6470.	4.0	56
47	Methyl cyanide and hydrogen cyanide measurements in the lower stratosphere: Implications for methyl cyanide sources and sinks. Journal of Geophysical Research, 1997, 102, 25501-25506.	3.3	54
48	Characterization of a Newly Developed Aircraft-Based Laser Ablation Aerosol Mass Spectrometer (ALABAMA) and First Field Deployment in Urban Pollution Plumes over Paris During MEGAPOLI 2009. Aerosol Science and Technology, 2011, 45, 46-64.	3.1	53
49	Aerosol properties, source identification, and cloud processing in orographic clouds measured by single particle mass spectrometry on a central European mountain site during HCCT-2010. Atmospheric Chemistry and Physics, 2016, 16, 505-524.	4.9	53
50	Source identification and airborne chemical characterisation of aerosol pollution from long-range transport over Greenland during POLARCAT summer campaign 2008. Atmospheric Chemistry and Physics, 2011, 11, 10097-10123.	4.9	52
51	Rural continental aerosol properties and processes observed during the Hohenpeissenberg Aerosol Characterization Experiment (HAZE2002). Atmospheric Chemistry and Physics, 2008, 8, 603-623.	4.9	49
52	Particulate trimethylamine in the summertime Canadian high Arctic lower troposphere. Atmospheric Chemistry and Physics, 2017, 17, 13747-13766.	4.9	49
53	A comprehensive characterization of ice nucleation by three different types of cellulose particles immersed in water. Atmospheric Chemistry and Physics, 2019, 19, 4823-4849.	4.9	48
54	Measurement of Ambient, Interstitial, and Residual Aerosol Particles on a Mountaintop Site in Central Sweden using an Aerosol Mass Spectrometer and a CVI. Journal of Atmospheric Chemistry, 2006, 56, 1-20.	3.2	47

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55	In situ measurements of particle number concentration, chemically resolved size distributions and black carbon content of traffic-related emissions on German motorways, rural roads and in city traffic. Atmospheric Environment, 2008, 42, 4257-4268.	4.1	47
56	Aerosol layers from the 2008 eruptions of Mount Okmok and Mount Kasatochi: In situ upper troposphere and lower stratosphere measurements of sulfate and organics over Europe. Journal of Geophysical Research, 2010, 115, .	3.3	46
57	A comprehensive in situ and remote sensing data set from the Arctic CLoud Observations Using airborne measurements during polar Day (ACLOUD) campaign. Earth System Science Data, 2019, 11, 1853-1881.	9.9	42
58	Soluble mass, hygroscopic growth, and droplet activation of coated soot particles during LACIS Experiment in November (LExNo). Journal of Geophysical Research, 2010, 115, .	3.3	40
59	Influx of African biomass burning aerosol during the Amazonian dry season through layered transatlantic transport of black carbon-rich smoke. Atmospheric Chemistry and Physics, 2020, 20, 4757-4785.	4.9	40
60	Online single particle analysis of ice particle residuals from mountain-top mixed-phase clouds using laboratory derived particle type assignment. Atmospheric Chemistry and Physics, 2017, 17, 575-594.	4.9	39
61	Aircraft-based observations of isoprene-epoxydiol-derived secondary organic aerosol (IEPOX-SOA) in the tropical upper troposphere over the Amazon region. Atmospheric Chemistry and Physics, 2018, 18, 14979-15001.	4.9	39
62	Single-particle characterization of ice-nucleating particles and ice particle residuals sampled by three different techniques. Atmospheric Chemistry and Physics, 2015, 15, 4161-4178.	4.9	38
63	Observations of high concentrations of total reactive nitrogen (NOy) and nitric acid (HNO3) in the lower Arctic stratosphere during the Stratosphere-Troposphere Experiment by Aircraft Measurements (STREAM) II campaign in February 1995. Journal of Geophysical Research, 1997, 102, 23559-23571.	3.3	37
64	Airborne stratospheric ITCIMS measurements of SO₂, HCl, and HNO₃ in the aged plume of volcano Kasatochi. Journal of Geophysical Research, 2010, 115, .	3.3	36
65	Online mass spectrometric aerosol measurements during the MINOS campaign (Crete, August 2001). Atmospheric Chemistry and Physics, 2004, 4, 65-80.	4.9	34
66	Ship emissions measurement in the Arctic by plume intercepts of the Canadian Coast Guard icebreaker <i>Amundsen</i> from the <i>Polar 6</i> aircraft platform. Atmospheric Chemistry and Physics, 2016, 16, 7899-7916.	4.9	32
67	Morphological characterization of soot aerosol particles during LACIS Experiment in November (LExNo). Journal of Geophysical Research, 2010, 115, .	3.3	31
68	In-cloud sulfate addition to single particles resolved with sulfur isotope analysis during HCCT-2010. Atmospheric Chemistry and Physics, 2014, 14, 4219-4235.	4.9	31
69	Aircraft-based operation of an aerosol mass spectrometer: Measurements of tropospheric aerosol composition. Journal of Aerosol Science, 2006, 37, 839-857.	3.8	30
70	Physical and chemical properties of pollution aerosol particles transported from North America to Greenland as measured during the POLARCAT summer campaign. Atmospheric Chemistry and Physics, 2011, 11, 10947-10963.	4.9	30
71	Urban influence on the concentration and composition of submicron particulate matter in central Amazonia. Atmospheric Chemistry and Physics, 2018, 18, 12185-12206.	4.9	30
72	Remote biomass burning dominates southern West African air pollution during the monsoon. Atmospheric Chemistry and Physics, 2019, 19, 15217-15234.	4.9	29

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73	Title is missing!. Journal of Atmospheric Chemistry, 1997, 26, 275-310.	3.2	28
74	First gaseous ion composition measurements in the exhaust plume of a jet aircraft in flight: Implications for gaseous sulfuric acid, aerosols, and chemiions. Geophysical Research Letters, 1998, 25, 2137-2140.	4.0	27
75	Chemical Composition of Cloud Water in the Puerto Rican Tropical Trade Wind Cumuli. Water, Air, and Soil Pollution, 2009, 200, 3-14.	2.4	27
76	Uptake of nitric acid, ammonia, and organics in orographic clouds: mass spectrometric analyses of droplet residual and interstitial aerosol particles. Atmospheric Chemistry and Physics, 2017, 17, 1571-1593.	4.9	27
77	Coal fly ash: linking immersion freezing behavior and physicochemical particle properties. Atmospheric Chemistry and Physics, 2018, 18, 13903-13923.	4.9	27
78	Examination of laboratoryâ€generated coated soot particles: An overview of the LACIS Experiment in November (LExNo) campaign. Journal of Geophysical Research, 2010, 115, .	3.3	25
79	Ice residual properties in mixedâ€phase clouds at the highâ€alpine Jungfraujoch site. Journal of Geophysical Research D: Atmospheres, 2016, 121, 12343-12362.	3.3	25
80	Characterization of transport regimes and the polar dome during Arctic spring and summer using in situ aircraft measurements. Atmospheric Chemistry and Physics, 2019, 19, 15049-15071.	4.9	25
81	Nitric acid (HNO3) in the upper troposphere and lower stratosphere at midlatitudes: New results from aircraft-based mass spectrometric measurements. Journal of Geophysical Research, 1998, 103, 25337-25343.	3.3	24
82	Quantitative single-particle analysis with the Aerodyne aerosol mass spectrometer: development of a new classification algorithm and its application to field data. Atmospheric Measurement Techniques, 2013, 6, 3131-3145.	3.1	24
83	Comparison of a Quadrupole and a Time-of-Flight Aerosol Mass Spectrometer during the Feldberg Aerosol Characterization Experiment 2004. Aerosol Science and Technology, 2007, 41, 679-691.	3.1	23
84	Assessment of cloud supersaturation by size-resolved aerosol particle and cloud condensation nuclei (CCN) measurements. Atmospheric Measurement Techniques, 2014, 7, 2615-2629.	3.1	23
85	Three years of routine Raman lidar measurements of tropospheric aerosols: Backscattering, extinction, and residual layer height. Atmospheric Chemistry and Physics, 2002, 2, 313-323.	4.9	22
86	Aerosol Chemistry Resolved by Mass Spectrometry: Insights into Particle Growth after Ambient New Particle Formation. Environmental Science & Technology, 2016, 50, 10814-10822.	10.0	22
87	Aerosol Chemistry Resolved by Mass Spectrometry: Linking Field Measurements of Cloud Condensation Nuclei Activity to Organic Aerosol Composition. Environmental Science & Technology, 2016, 50, 10823-10832.	10.0	22
88	The impact of mineral dust on cloud formation during the Saharan dust event in AprilÂ2014 over Europe. Atmospheric Chemistry and Physics, 2018, 18, 17545-17572.	4.9	19
89	Composition of ice particle residuals in mixed-phase clouds at Jungfraujoch (Switzerland): enrichment and depletion of particle groups relative to total aerosol. Atmospheric Chemistry and Physics, 2018, 18, 13987-14003.	4.9	19
90	The temporal evolution of the ratio HNO3/NOyin the Arctic lower stratosphere from January to March 1997. Geophysical Research Letters, 1999, 26, 1125-1128.	4.0	18

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91	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
92	Microphysical and chemical characteristics of cloud droplet residuals and interstitial particles in continental stratocumulus clouds. Atmospheric Research, 2007, 86, 225-240.	4.1	17
93	African volcanic emissions influencing atmospheric aerosols over the Amazon rain forest. Atmospheric Chemistry and Physics, 2018, 18, 10391-10405.	4.9	16
94	Future changes in isoprene-epoxydiol-derived secondary organic aerosol (IEPOX SOA) under the Shared Socioeconomic Pathways: the importance of physicochemical dependency. Atmospheric Chemistry and Physics, 2021, 21, 3395-3425.	4.9	16
95	Overview: On the transport and transformation of pollutants in the outflow of major population centres â€“ observational data from the EMeRGe European intensive operational period in summer 2017. Atmospheric Chemistry and Physics, 2022, 22, 5877-5924.	4.9	16
96	Title is missing!. Journal of Atmospheric Chemistry, 1998, 30, 49-59.	3.2	15
97	Comprehensive assessment of meteorological conditions and airflow connectivity during HCCT-2010. Atmospheric Chemistry and Physics, 2014, 14, 9105-9128.	4.9	15
98	New SOA Treatments Within the Energy Exascale Earth System Model (E3SM): Strong Production and Sinks Govern Atmospheric SOA Distributions and Radiative Forcing. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002266.	3.8	15
99	Comparison of aircraft measurements during GoAmazon2014/5 and ACRIDICON-CHUVA. Atmospheric Measurement Techniques, 2020, 13, 661-684.	3.1	12
100	Multiwavelength lidar observation of a strange noctilucent cloud at KÃ¼hlungsborn, Germany (54Â°N). Journal of Geophysical Research, 2001, 106, 7945-7953.	3.3	11
101	Tight Coupling of Surface and In-Plant Biochemistry and Convection Governs Key Fine Particulate Components over the Amazon Rainforest. ACS Earth and Space Chemistry, 2022, 6, 380-390.	2.7	11
102	Optimizing the detection, ablation, and ion extraction efficiency of a single-particle laser ablation mass spectrometer for application in environments with low aerosol particle concentrations. Atmospheric Measurement Techniques, 2020, 13, 5923-5953.	3.1	10
103	Field evaluation of a Portable Fine Particle Concentrator (PFPC) for ice nucleating particle measurements. Aerosol Science and Technology, 2019, 53, 1067-1078.	3.1	9
104	Application of an O-ring pinch device as a constant-pressure inlet (CPI) for airborne sampling. Atmospheric Measurement Techniques, 2020, 13, 3651-3660.	3.1	9
105	Tropospheric aerosol layers after a cold front passage in January 2000 as observed at several stations of the German Lidar Network. Atmospheric Research, 2002, 63, 39-58.	4.1	7
106	Airborne survey of trace gases and aerosols over the Southern Baltic Sea: from clean marine boundary layer to shipping corridor effect. Tellus, Series B: Chemical and Physical Meteorology, 2022, 72, 1695349.	1.6	7
107	Sources and nature of ice-nucleating particles in the free troposphere at Jungfraujoch in winter 2017. Atmospheric Chemistry and Physics, 2021, 21, 16925-16953.	4.9	6
108	Chemical composition and source attribution of sub-micrometre aerosol particles in the summertime Arctic lower troposphere. Atmospheric Chemistry and Physics, 2021, 21, 6509-6539.	4.9	5

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109	Technical note: Sea salt interference with black carbon quantification in snow samples using the single particle soot photometer. Atmospheric Chemistry and Physics, 2021, 21, 9329-9342.	4.9	3
110	Design, characterization, and first field deployment of a novel aircraft-based aerosol mass spectrometer combining the laser ablation and flash vaporization techniques. Atmospheric Measurement Techniques, 2022, 15, 2889-2921.	3.1	3