Jonathan Duplissy

List of Publications by Year
in descending order

127 papers	16,415 citations	43617 47 h-index	19738 115 g-index
190 all docs	190 docs citations	190 times ranked	8036 citing authors

#	Article	IF	Citations
1	Nitrate Radicals Suppress Biogenic New Particle Formation from Monoterpene Oxidation. Environmental Science & Technology, 2024, 58, 1601-1614.	10.3	1
2	Assessing the importance of nitric acid and ammonia for particle growth in the polluted boundary layer. Environmental Science Atmospheres, 2024, 4, 265-274.	2.1	2
3	Temperature, humidity, and ionisation effect of iodine oxoacid nucleation. Environmental Science Atmospheres, 2024, 4, 531-546.	2.1	1
4	Interactions of peroxy radicals from monoterpene and isoprene oxidation simulated in the radical volatility basis set. Environmental Science Atmospheres, 2024, 4, 740-753.	2.1	0
5	Vertical distribution of ice nucleating particles over the boreal forest of HyytiÃlÃ, Finland. Atmospheric Chemistry and Physics, 2024, 24, 11305-11332.	4.9	0
6	The gas-phase formation mechanism of iodic acid as an atmospheric aerosol source. Nature Chemistry, 2023, 15, 129-135.	14.1	21
7	Molecular Understanding of the Enhancement in Organic Aerosol Mass at High Relative Humidity. Environmental Science & Technology, 2023, 57, 2297-2309.	10.3	16
8	NO at low concentration can enhance the formation of highly oxygenated biogenic molecules in the atmosphere. Nature Communications, 2023, 14, .	13.0	11
9	An intercomparison study of four different techniques for measuring the chemical composition of nanoparticles. Atmospheric Chemistry and Physics, 2023, 23, 6613-6631.	4.9	2
10	The synergistic role of sulfuric acid, ammonia and organics in particle formation over an agricultural land. Environmental Science Atmospheres, 2023, 3, 1195-1211.	2.1	0
11	Development and characterization of the Portable Ice Nucleation Chamber 2 (PINCii). Atmospheric Measurement Techniques, 2023, 16, 3881-3899.	3.1	0
12	The standard operating procedure for Airmodus Particle Size Magnifier and nano-Condensation Nucleus Counter. Journal of Aerosol Science, 2022, 159, 105896.	3.9	11
13	Modelling the gasâ€“particle partitioning and water uptake of isoprene-derived secondary organic aerosol at high and low relative humidity. Atmospheric Chemistry and Physics, 2022, 22, 215-244.	4.9	8
14	Survival of newly formed particles in haze conditions. Environmental Science Atmospheres, 2022, 2, 491-499.	2.1	8
15	Overview: Recent advances in the understanding of the northern Eurasian environments and of the urban air quality in China â€“ a Pan-Eurasian Experiment (PEEX) programme perspective. Atmospheric Chemistry and Physics, 2022, 22, 4413-4469.	4.9	11
16	Measurement report: Introduction to the HyICE-2018 campaign for measurements of ice-nucleating particles and instrument inter-comparison in the HyytiÃlÃ boreal forest. Atmospheric Chemistry and Physics, 2022, 22, 5117-5145.	4.9	4
17	Synergistic HNO3â€“H2SO4â€“NH3 upper tropospheric particle formation. Nature, 2022, 605, 483-489.	35.8	31
18	Measurement report: Atmospheric new particle formation in a coastal agricultural site explained with binPMF analysis of nitrate CI-APi-TOF spectra. Atmospheric Chemistry and Physics, 2022, 22, 8097-8115.	4.9	8

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19	Diurnal evolution of negative atmospheric ions above the boreal forest: from ground level to the free troposphere. Atmospheric Chemistry and Physics, 2022, 22, 8547-8577.	4.9	6
20	High Gas-Phase Methanesulfonic Acid Production in the OH-Initiated Oxidation of Dimethyl Sulfide at Low Temperatures. Environmental Science & Technology, 2022, 56, 13931-13944.	10.3	20
21	Effects of temperature and salinity on bubble-bursting aerosol formation simulated with a bubble-generating chamber. Atmospheric Measurement Techniques, 2022, 15, 6201-6219.	3.1	7
22	Molecular characterization of ultrafine particles using extractive electrospray time-of-flight mass spectrometry. Environmental Science Atmospheres, 2021, 1, 434-448.	2.1	12
23	Role of iodine oxoacids in atmospheric aerosol nucleation. Science, 2021, 371, 589-595.	19.8	113
24	Investigation of several proxies to estimate sulfuric acid concentration under volcanic plume conditions. Atmospheric Chemistry and Physics, 2021, 21, 4541-4560.	4.9	6
25	The seasonal cycle of ice-nucleating particles linked to the abundance of biogenic aerosol in boreal forests. Atmospheric Chemistry and Physics, 2021, 21, 3899-3918.	4.9	35
26	Ice nucleation by viruses and their potential for cloud glaciation. Biogeosciences, 2021, 18, 4431-4444.	3.4	12
27	The driving factors of new particle formation and growth in the polluted boundary layer. Atmospheric Chemistry and Physics, 2021, 21, 14275-14291.	4.9	39
28	Chemical composition of nanoparticles from <i>Î±</i>-pinene nucleation and the influence of isoprene and relative humidity at low temperature. Atmospheric Chemistry and Physics, 2021, 21, 17099-17114.	4.9	14
29	Comparing plastic foils for dew collection: Preparatory laboratory-scale method and field experiment in Kenya. Biosystems Engineering, 2020, 196, 145-158.	4.3	9
30	Rapid growth of new atmospheric particles by nitric acid and ammonia condensation. Nature, 2020, 581, 184-189.	35.8	187
31	Size-dependent influence of NO _x on the growth rates of organic aerosol particles. Science Advances, 2020, 6, eaay4945.	10.8	68
32	Photo-oxidation of Aromatic Hydrocarbons Produces Low-Volatility Organic Compounds. Environmental Science & Technology, 2020, 54, 7911-7921.	10.3	77
33	Molecular understanding of the suppression of new-particle formation by isoprene. Atmospheric Chemistry and Physics, 2020, 20, 11809-11821.	4.9	53
34	Molecular understanding of new-particle formation from <i>Î±</i>-pinene between â^'50 and +25â€‰Â°C. Atmospheric Chemistry and Physics, 2020, 20, 9183-9207.	4.9	73
35	Molecular Composition and Volatility of Nucleated Particles from Î±-Pinene Oxidation between â^'50 Â°C and +25 Â°C. Environmental Science & Technology, 2019, 53, 12357-12365.	10.3	38
36	Comparison of surface foil materials and dew collectors location in an arid area: a one-year field experiment in Kenya. Agricultural and Forest Meteorology, 2019, 276-277, 107613.	4.8	13

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37	Evidence of New Particle Formation Within Etna and Stromboli Volcanic Plumes and Its Parameterization From Airborne In Situ Measurements. Journal of Geophysical Research D: Atmospheres, 2019, 124, 5650-5668.	3.3	20
38	Formation of Highly Oxygenated Organic Molecules from Î±-Pinene Ozonolysis: Chemical Characteristics, Mechanism, and Kinetic Model Development. ACS Earth and Space Chemistry, 2019, 3, 873-883.	2.8	56
39	Interactions between the atmosphere, cryosphere, and ecosystems at northern high latitudes. Atmospheric Chemistry and Physics, 2019, 19, 2015-2061.	4.9	42
40	Spatial and Temporal Investigation of Dew Potential based on Long-Term Model Simulations in Iran. Water (Switzerland), 2019, 11, 2463.	2.8	5
41	New Parameterizations for Neutral and Ionâ€Induced Sulfuric Acidâ€Water Particle Formation in Nucleation and Kinetic Regimes. Journal of Geophysical Research D: Atmospheres, 2018, 123, 1269-1296.	3.3	27
42	Measurementâ€“model comparison of stabilized Criegee intermediateÂand highly oxygenated molecule productionÂinÂtheÂCLOUDÂchamber. Atmospheric Chemistry and Physics, 2018, 18, 2363-2380.	4.9	23
43	New particle formation in the sulfuric acidâ€“dimethylamineâ€“water system: reevaluation of CLOUD chamber measurements and comparison to an aerosol nucleation and growth model. Atmospheric Chemistry and Physics, 2018, 18, 845-863.	4.9	99
44	Influence of temperature on the molecular composition of ions and charged clusters during pure biogenic nucleation. Atmospheric Chemistry and Physics, 2018, 18, 65-79.	4.9	59
45	Multicomponent new particle formation from sulfuric acid, ammonia, and biogenic vapors. Science Advances, 2018, 4, eaau5363.	10.8	186
46	Aerosol distribution in the northern Gulf of Guinea: local anthropogenic sources, long-range transport, and the role of coastal shallow circulations. Atmospheric Chemistry and Physics, 2018, 18, 12363-12389.	4.9	22
47	Rapid growth of organic aerosol nanoparticles over a wide tropospheric temperature range. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9122-9127.	7.5	134
48	Solar eclipse demonstrating the importance of photochemistry in new particle formation. Scientific Reports, 2017, 7, 45707.	3.4	32
49	Chemical investigation and quality of urban dew collections with dust precipitates. Environmental Science and Pollution Research, 2017, 24, 12312-12318.	5.2	12
50	Causes and importance of new particle formation in the presentâ€day and preindustrial atmospheres. Journal of Geophysical Research D: Atmospheres, 2017, 122, 8739-8760.	3.3	225
51	The role of ions in new particle formation in the CLOUD chamber. Atmospheric Chemistry and Physics, 2017, 17, 15181-15197.	4.9	53
52	Estimates of the organic aerosol volatility in a boreal forest using two independent methods. Atmospheric Chemistry and Physics, 2017, 17, 4387-4399.	4.9	15
53	Global source attribution of sulfate concentration and direct and indirect radiative forcing. Atmospheric Chemistry and Physics, 2017, 17, 8903-8922.	4.9	62
54	Intercomparison study and optical asphericity measurements of small ice particles in the CERN CLOUD experiment. Atmospheric Measurement Techniques, 2017, 10, 3231-3248.	3.1	4

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55	Effect of ions on sulfuric acidâ€water binary particle formation: 2. Experimental data and comparison with QCâ€normalized classical nucleation theory. Journal of Geophysical Research D: Atmospheres, 2016, 121, 1752-1775.	3.3	104
56	Effect of ions on sulfuric acidâ€water binary particle formation: 1. Theory for kineticâ€•and nucleationâ€type particle formation and atmospheric implications. Journal of Geophysical Research D: Atmospheres, 2016, 121, 1736-1751.	3.3	35
57	Comparison of the SAWNUC model with CLOUD measurements of sulphuric acidâ€water nucleation. Journal of Geophysical Research D: Atmospheres, 2016, 121, 12401-12414.	3.3	17
58	Effect of dimethylamine on the gas phase sulfuric acid concentration measured by Chemical Ionization Mass Spectrometry. Journal of Geophysical Research D: Atmospheres, 2016, 121, 3036-3049.	3.3	17
59	Experimental particle formation rates spanning tropospheric sulfuric acid and ammonia abundances, ion production rates, and temperatures. Journal of Geophysical Research D: Atmospheres, 2016, 121, 12,377.	3.3	74
60	The role of low-volatility organic compounds in initial particle growth in the atmosphere. Nature, 2016, 533, 527-531.	35.8	583
61	Ion-induced nucleation of pure biogenic particles. Nature, 2016, 533, 521-526.	35.8	563
62	Reduced anthropogenic aerosol radiative forcing caused by biogenic new particle formation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12053-12058.	7.5	112
63	Modeling the thermodynamics and kinetics of sulfuric acid-dimethylamine-water nanoparticle growth in the CLOUD chamber. Aerosol Science and Technology, 2016, 50, 1017-1032.	3.1	14
64	Global atmospheric particle formation from CERN CLOUD measurements. Science, 2016, 354, 1119-1124.	19.8	311
65	The effect of acidâ€“base clustering and ions on the growth of atmospheric nano-particles. Nature Communications, 2016, 7, 11594.	13.0	120
66	Heterogeneous ice nucleation of viscous secondary organic aerosol produced from ozonolysis of <i>Î±</i>-pinene. Atmospheric Chemistry and Physics, 2016, 16, 6495-6509.	4.9	71
67	Unexpectedly acidic nanoparticles formed in dimethylamineâ€“ammoniaâ€“sulfuric-acid nucleation experiments at CLOUD. Atmospheric Chemistry and Physics, 2016, 16, 13601-13618.	4.9	24
68	Aqueous phase oxidation of sulphur dioxide by ozone in cloud droplets. Atmospheric Chemistry and Physics, 2016, 16, 1693-1712.	4.9	48
69	Hygroscopicity of nanoparticles produced from homogeneous nucleation in the CLOUD experiments. Atmospheric Chemistry and Physics, 2016, 16, 293-304.	4.9	29
70	Phase transition observations and discrimination of small cloud particles by light polarization in expansion chamber experiments. Atmospheric Chemistry and Physics, 2016, 16, 3651-3664.	4.9	12
71	Observation of viscosity transition in <i>Î±</i>-pinene secondary organic aerosol. Atmospheric Chemistry and Physics, 2016, 16, 4423-4438.	4.9	55
72	Major contribution of neutral clusters to new particle formation at the interface between the boundary layer and the free troposphere. Atmospheric Chemistry and Physics, 2015, 15, 3413-3428.	4.9	42

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73	Experimental investigation of ionâ€“ion recombination under atmospheric conditions. Atmospheric Chemistry and Physics, 2015, 15, 7203-7216.	4.9	47
74	Thermodynamics of the formation of sulfuric acid dimers in the binary (H₂SO₄â€“H<sub>2</sub and ternary (H₂SO₄â€“H<sub>2</sub system. Atmospheric Chemistry and Physics, 2015, 15, 10701-10721.	4.9	29
75	Relating the hygroscopic properties of submicron aerosol to both gas- and particle-phase chemical composition in a boreal forest environment. Atmospheric Chemistry and Physics, 2015, 15, 11999-12009.	4.9	18
76	Elemental composition and clustering behaviour of Î±-pinene oxidation products for different oxidation conditions. Atmospheric Chemistry and Physics, 2015, 15, 4145-4159.	4.9	17
77	Technical Note: Using DEG-CPCs at upper tropospheric temperatures. Atmospheric Chemistry and Physics, 2015, 15, 7547-7555.	4.9	11
78	Estimates of global dew collection potential on artificial surfaces. Hydrology and Earth System Sciences, 2015, 19, 601-613.	4.9	42
79	On the composition of ammoniaâ€“sulfuric-acid ion clusters during aerosol particle formation. Atmospheric Chemistry and Physics, 2015, 15, 55-78.	4.9	87
80	Insight into Acidâ€“Base Nucleation Experiments by Comparison of the Chemical Composition of Positive, Negative, and Neutral Clusters. Environmental Science & Technology, 2014, 48, 13675-13684.	10.3	52
81	Characterisation of organic contaminants in the CLOUD chamber at CERN. Atmospheric Measurement Techniques, 2014, 7, 2159-2168.	3.1	41
82	Oxidation Products of Biogenic Emissions Contribute to Nucleation of Atmospheric Particles. Science, 2014, 344, 717-721.	19.8	477
83	Neutral molecular cluster formation of sulfuric acidâ€“dimethylamine observed in real time under atmospheric conditions. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15019-15024.	7.5	212
84	Molecular understanding of sulphuric acidâ€“amine particle nucleation in the atmosphere. Nature, 2013, 502, 359-363.	35.8	804
85	Ternary H[sub 2]SO[sub 4]-H[sub 2]O-NH[sub 3] neutral and charged nucleation rates for a wide range of atmospheric conditions. AIP Conference Proceedings, 2013, , .	0.2	0
86	Cluster measurements at CLOUD using a high resolution ion mobility spectrometer-mass spectrometer combination. AIP Conference Proceedings, 2013, , .	0.2	1
87	Contribution of oxidized organic compounds to nanoparticle growth. AIP Conference Proceedings, 2013, , .	0.2	0
88	Measuring composition and growth of ion clusters of sulfuric acid, ammonia, amines and oxidized organics as first steps of nucleation in the CLOUD experiment. AIP Conference Proceedings, 2013, , .	0.2	0
89	Charged and neutral binary nucleation of sulfuric acid in free troposphere conditions. AIP Conference Proceedings, 2013, , .	0.2	0
90	Particle nucleation events at the high Alpine station Jungfraujoch. AIP Conference Proceedings, 2013, , .	0.2	0

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91	Measurements of cluster ions using a nano radial DMA and a particle size magnifier in CLOUD. AIP Conference Proceedings, 2013, , .	0.2	0
92	Evolution of nanoparticle composition in CLOUD in presence of sulphuric acid, ammonia and organics. AIP Conference Proceedings, 2013, , .	0.2	1
93	How do amines affect the growth of recently formed aerosol particles. AIP Conference Proceedings, 2013, , .	0.2	0
94	Molecular steps of neutral sulfuric acid and dimethylamine nucleation in CLOUD. AIP Conference Proceedings, 2013, , .	0.2	1
95	Nucleation of H[sub 2]SO[sub 4] and oxidized organics in CLOUD experiment. AIP Conference Proceedings, 2013, , .	0.2	0
96	Evolution of Î±-pinene oxidation products in the presence of varying oxidizers: Negative APi-TOF point of view. AIP Conference Proceedings, 2013, , .	0.2	0
97	Evolution of alpha-pinene oxidation products in the presence of varying oxidizers: CI-APi-TOF point of view. AIP Conference Proceedings, 2013, , .	0.2	0
98	Development of the gas system for the CLOUD experiment at CERN. , 2013, , .		0
99	Molecular understanding of atmospheric particle formation from sulfuric acid and large oxidized organic molecules. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 17223-17228.	7.5	310
100	Evolution of particle composition in CLOUD nucleation experiments. Atmospheric Chemistry and Physics, 2013, 13, 5587-5600.	4.9	33
101	An ultra-pure gas system for the CLOUD experiment at CERN. , 2012, , .		4
102	Numerical simulations of mixing conditions and aerosol dynamics in the CERN CLOUD chamber. Atmospheric Chemistry and Physics, 2012, 12, 2205-2214.	4.9	44
103	Role of sulphuric acid, ammonia and galactic cosmic rays in atmospheric aerosol nucleation. Nature, 2011, 476, 429-433.	35.8	1,144
104	A fibre-optic UV system for H2SO4 production in aerosol chambers causing minimal thermal effects. Journal of Aerosol Science, 2011, 42, 532-543.	3.9	44
105	Relating hygroscopicity and composition of organic aerosol particulate matter. Atmospheric Chemistry and Physics, 2011, 11, 1155-1165.	4.9	330
106	Seasonal variation of CCN concentrations and aerosol activation properties in boreal forest. Atmospheric Chemistry and Physics, 2011, 11, 13269-13285.	4.9	124
107	The role of sulphates and organic vapours in growth of newly formed particles in a eucalypt forest. Atmospheric Chemistry and Physics, 2010, 10, 2919-2926.	4.9	45
108	Widening the gap between measurement and modelling of secondary organic aerosol properties?. Atmospheric Chemistry and Physics, 2010, 10, 2577-2593.	4.9	61

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109	Results from the CERN pilot CLOUD experiment. Atmospheric Chemistry and Physics, 2010, 10, 1635-1647.	4.9	96
110	Evidence for the role of organics in aerosol particle formation under atmospheric conditions. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6646-6651.	7.5	413
111	Intercomparison study of six HTDMAs: results and recommendations. Atmospheric Measurement Techniques, 2009, 2, 363-378.	3.1	125
112	Determination of the Aerosol Yield of Isoprene in the Presence of an Organic Seed with Carbon Isotope Analysis. Environmental Science & Technology, 2009, 43, 6697-6702.	10.3	30
113	Influence of gas-to-particle partitioning on the hygroscopic and droplet activation behaviour of Î±-pinene secondary organic aerosol. Physical Chemistry Chemical Physics, 2009, 11, 8091.	2.9	59
114	Analysis of the hygroscopic and volatile properties of ammonium sulphate seeded and unseeded SOA particles. Atmospheric Chemistry and Physics, 2009, 9, 721-732.	4.9	119
115	Gas phase precursors to anthropogenic secondary organic aerosol: detailed observations of 1,3,5-trimethylbenzene photooxidation. Atmospheric Chemistry and Physics, 2009, 9, 635-665.	4.9	88
116	Cloud forming potential of secondary organic aerosol under near atmospheric conditions. Geophysical Research Letters, 2008, 35, .	3.9	146
117	O/C and OM/OC Ratios of Primary, Secondary, and Ambient Organic Aerosols with High-Resolution Time-of-Flight Aerosol Mass Spectrometry. Environmental Science & Technology, 2008, 42, 4478-4485.	10.3	1,545
118	Using Proton Transfer Reaction Mass Spectrometry for Online Analysis of Secondary Organic Aerosols. Environmental Science & Technology, 2008, 42, 7347-7353.	10.3	38
119	Combined Determination of the Chemical Composition and of Health Effects of Secondary Organic Aerosols: The POLYSOA Project. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2008, 21, 145-154.	1.5	97
120	Gas/particle partitioning of carbonyls in the photooxidation of isoprene and 1,3,5-trimethylbenzene. Atmospheric Chemistry and Physics, 2008, 8, 3215-3230.	4.9	103
121	Hygroscopicity of the submicrometer aerosol at the high-alpine site Jungfraujoch, 3580 m a.s.l., Switzerland. Atmospheric Chemistry and Physics, 2008, 8, 5715-5729.	4.9	100
122	Evaluation of 1,3,5 trimethylbenzene degradation in the detailed tropospheric chemistry mechanism, MCMv3.1, using environmental chamber data. Atmospheric Chemistry and Physics, 2008, 8, 6453-6468.	4.9	57
123	Combined Determination of the Chemical Composition and of Health Effects of Secondary Organic Aerosols: The POLYSOA Project. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2008, .	1.4	14
124	Aerosol Formation from Isoprene: Determination of Particle Nucleation and Growth Rates. , 2007, , 989-993.		0
125	Real-Time Measurement of Oligomeric Species in Secondary Organic Aerosol with the Aerosol Time-of-Flight Mass Spectrometer. Analytical Chemistry, 2006, 78, 2130-2137.	6.7	99
126	Laboratory observation of oligomers in the aerosol from isoprene/NOxphotooxidation. Geophysical Research Letters, 2006, 33, .	3.9	154

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127	A Pilot Study of Aerosolization of InfectiousÂMurine Norovirus in an Experimental Setup. Food and Environmental Virology, 0, , .	3.4	0