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	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
2	Role of sulphuric acid, ammonia and galactic cosmic rays in atmospheric aerosol nucleation. Nature, 2011, 476, 429-433.	35.8	1,144
3	Molecular understanding of sulphuric acidâ€“amine particle nucleation in the atmosphere. Nature, 2013, 502, 359-363.	35.8	804
4	The role of low-volatility organic compounds in initial particle growth in the atmosphere. Nature, 2016, 533, 527-531.	35.8	583
5	Ion-induced nucleation of pure biogenic particles. Nature, 2016, 533, 521-526.	35.8	563
6	Oxidation Products of Biogenic Emissions Contribute to Nucleation of Atmospheric Particles. Science, 2014, 344, 717-721.	19.8	477
7	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
8	Relating hygroscopicity and composition of organic aerosol particulate matter. Atmospheric Chemistry and Physics, 2011, 11, 1155-1165.	4.9	330
9	Global atmospheric particle formation from CERN CLOUD measurements. Science, 2016, 354, 1119-1124.	19.8	311
10	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
11	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
12	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
13	Rapid growth of new atmospheric particles by nitric acid and ammonia condensation. Nature, 2020, 581, 184-189.	35.8	187
14	Multicomponent new particle formation from sulfuric acid, ammonia, and biogenic vapors. Science Advances, 2018, 4, eaau5363.	10.8	186
15	Laboratory observation of oligomers in the aerosol from isoprene/NOxphotooxidation. Geophysical Research Letters, 2006, 33, .	3.9	154
16	Cloud forming potential of secondary organic aerosol under near atmospheric conditions. Geophysical Research Letters, 2008, 35, .	3.9	146
17	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
18	Intercomparison study of six HTDMAs: results and recommendations. Atmospheric Measurement Techniques, 2009, 2, 363-378.	3.1	125

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19	Seasonal variation of CCN concentrations and aerosol activation properties in boreal forest. Atmospheric Chemistry and Physics, 2011, 11, 13269-13285.	4.9	124
20	The effect of acidâ€“base clustering and ions on the growth of atmospheric nano-particles. Nature Communications, 2016, 7, 11594.	13.0	120
21	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
22	Role of iodine oxoacids in atmospheric aerosol nucleation. Science, 2021, 371, 589-595.	19.8	113
23	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
24	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
25	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
26	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
27	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
28	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
29	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
30	Results from the CERN pilot CLOUD experiment. Atmospheric Chemistry and Physics, 2010, 10, 1635-1647.	4.9	96
31	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
32	On the composition of ammoniaâ€“sulfuric-acid ion clusters during aerosol particle formation. Atmospheric Chemistry and Physics, 2015, 15, 55-78.	4.9	87
33	Photo-oxidation of Aromatic Hydrocarbons Produces Low-Volatility Organic Compounds. Environmental Science & Technology, 2020, 54, 7911-7921.	10.3	77
34	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
35	Molecular understanding of new-particle formation from <i>Î±</i>-pinene between âˆ’50 and +25â€‰Â°C. Atmospheric Chemistry and Physics, 2020, 20, 9183-9207.	4.9	73
36	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

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37	Size-dependent influence of NO _x on the growth rates of organic aerosol particles. Science Advances, 2020, 6, eaay4945.	10.8	68
38	Global source attribution of sulfate concentration and direct and indirect radiative forcing. Atmospheric Chemistry and Physics, 2017, 17, 8903-8922.	4.9	62
39	Widening the gap between measurement and modelling of secondary organic aerosol properties?. Atmospheric Chemistry and Physics, 2010, 10, 2577-2593.	4.9	61
40	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
41	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
42	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
43	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
44	Observation of viscosity transition in <i>Î±</i>-pinene secondary organic aerosol. Atmospheric Chemistry and Physics, 2016, 16, 4423-4438.	4.9	55
45	The role of ions in new particle formation in the CLOUD chamber. Atmospheric Chemistry and Physics, 2017, 17, 15181-15197.	4.9	53
46	Molecular understanding of the suppression of new-particle formation by isoprene. Atmospheric Chemistry and Physics, 2020, 20, 11809-11821.	4.9	53
47	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
48	Aqueous phase oxidation of sulphur dioxide by ozone in cloud droplets. Atmospheric Chemistry and Physics, 2016, 16, 1693-1712.	4.9	48
49	Experimental investigation of ionâ€“ion recombination under atmospheric conditions. Atmospheric Chemistry and Physics, 2015, 15, 7203-7216.	4.9	47
50	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
51	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
52	Numerical simulations of mixing conditions and aerosol dynamics in the CERN CLOUD chamber. Atmospheric Chemistry and Physics, 2012, 12, 2205-2214.	4.9	44
53	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
54	Estimates of global dew collection potential on artificial surfaces. Hydrology and Earth System Sciences, 2015, 19, 601-613.	4.9	42

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55	Interactions between the atmosphere, cryosphere, and ecosystems at northern high latitudes. Atmospheric Chemistry and Physics, 2019, 19, 2015-2061.	4.9	42
56	Characterisation of organic contaminants in the CLOUD chamber at CERN. Atmospheric Measurement Techniques, 2014, 7, 2159-2168.	3.1	41
57	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
58	Using Proton Transfer Reaction Mass Spectrometry for Online Analysis of Secondary Organic Aerosols. Environmental Science & Technology, 2008, 42, 7347-7353.	10.3	38
59	Molecular Composition and Volatility of Nucleated Particles from Î±-Pinene Oxidation between âˆ’50 Â°C and +25 Â°C. Environmental Science & Technology, 2019, 53, 12357-12365.	10.3	38
60	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
61	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
62	Evolution of particle composition in CLOUD nucleation experiments. Atmospheric Chemistry and Physics, 2013, 13, 5587-5600.	4.9	33
63	Solar eclipse demonstrating the importance of photochemistry in new particle formation. Scientific Reports, 2017, 7, 45707.	3.4	32
64	Synergistic HNO3â€“H2SO4â€“NH3 upper tropospheric particle formation. Nature, 2022, 605, 483-489.	35.8	31
65	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
66	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
67	Hygroscopicity of nanoparticles produced from homogeneous nucleation in the CLOUD experiments. Atmospheric Chemistry and Physics, 2016, 16, 293-304.	4.9	29
68	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
69	Unexpectedly acidic nanoparticles formed in dimethylamineâ€“ammoniaâ€“sulfuric-acid nucleation experiments at CLOUD. Atmospheric Chemistry and Physics, 2016, 16, 13601-13618.	4.9	24
70	Measurementâ€“model comparison of stabilized Criegee intermediateÂand highly oxygenated molecule productionÂinÂtheÂCLOUDÂchamber. Atmospheric Chemistry and Physics, 2018, 18, 2363-2380.	4.9	23
71	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
72	The gas-phase formation mechanism of iodic acid as an atmospheric aerosol source. Nature Chemistry, 2023, 15, 129-135.	14.1	21

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73	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
74	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
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	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
78	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
79	Molecular Understanding of the Enhancement in Organic Aerosol Mass at High Relative Humidity. Environmental Science & Technology, 2023, 57, 2297-2309.	10.3	16
80	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
81	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
82	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
83	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
84	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
85	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
86	Chemical investigation and quality of urban dew collections with dust precipitates. Environmental Science and Pollution Research, 2017, 24, 12312-12318.	5.2	12
87	Molecular characterization of ultrafine particles using extractive electrospray time-of-flight mass spectrometry. Environmental Science Atmospheres, 2021, 1, 434-448.	2.1	12
88	Ice nucleation by viruses and their potential for cloud glaciation. Biogeosciences, 2021, 18, 4431-4444.	3.4	12
89	Technical Note: Using DEG-CPCs at upper tropospheric temperatures. Atmospheric Chemistry and Physics, 2015, 15, 7547-7555.	4.9	11
90	The standard operating procedure for Airmodus Particle Size Magnifier and nano-Condensation Nucleus Counter. Journal of Aerosol Science, 2022, 159, 105896.	3.9	11

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91	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
92	NO at low concentration can enhance the formation of highly oxygenated biogenic molecules in the atmosphere. Nature Communications, 2023, 14, .	13.0	11
93	Comparing plastic foils for dew collection: Preparatory laboratory-scale method and field experiment in Kenya. Biosystems Engineering, 2020, 196, 145-158.	4.3	9
94	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
95	Survival of newly formed particles in haze conditions. Environmental Science Atmospheres, 2022, 2, 491-499.	2.1	8
96	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
97	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
98	Investigation of several proxies to estimate sulfuric acid concentration under volcanic plume conditions. Atmospheric Chemistry and Physics, 2021, 21, 4541-4560.	4.9	6
99	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
100	Spatial and Temporal Investigation of Dew Potential based on Long-Term Model Simulations in Iran. Water (Switzerland), 2019, 11, 2463.	2.8	5
101	An ultra-pure gas system for the CLOUD experiment at CERN. , 2012, , .		4
102	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
103	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
104	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
105	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
106	Cluster measurements at CLOUD using a high resolution ion mobility spectrometer-mass spectrometer combination. AIP Conference Proceedings, 2013, , .	0.2	1
107	Evolution of nanoparticle composition in CLOUD in presence of sulphuric acid, ammonia and organics. AIP Conference Proceedings, 2013, , .	0.2	1
108	Molecular steps of neutral sulfuric acid and dimethylamine nucleation in CLOUD. AIP Conference Proceedings, 2013, , .	0.2	1

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109	Nitrate Radicals Suppress Biogenic New Particle Formation from Monoterpene Oxidation. Environmental Science & Technology, 2024, 58, 1601-1614.	10.3	1
110	Temperature, humidity, and ionisation effect of iodine oxoacid nucleation. Environmental Science Atmospheres, 2024, 4, 531-546.	2.1	1
111	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
112	Contribution of oxidized organic compounds to nanoparticle growth. AIP Conference Proceedings, 2013, , .	0.2	0
113	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
114	Charged and neutral binary nucleation of sulfuric acid in free troposphere conditions. AIP Conference Proceedings, 2013, , .	0.2	0
115	Particle nucleation events at the high Alpine station Jungfraujoch. AIP Conference Proceedings, 2013, , .	0.2	0
116	Measurements of cluster ions using a nano radial DMA and a particle size magnifier in CLOUD. AIP Conference Proceedings, 2013, , .	0.2	0
117	How do amines affect the growth of recently formed aerosol particles. AIP Conference Proceedings, 2013, , .	0.2	0
118	Nucleation of H[sub 2]SO[sub 4] and oxidized organics in CLOUD experiment. AIP Conference Proceedings, 2013, , .	0.2	0
119	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
120	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
121	Development of the gas system for the CLOUD experiment at CERN. , 2013, , .		0
122	Aerosol Formation from Isoprene: Determination of Particle Nucleation and Growth Rates. , 2007, , 989-993.		0
123	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
124	Development and characterization of the Portable Ice Nucleation Chamber 2 (PINCii). Atmospheric Measurement Techniques, 2023, 16, 3881-3899.	3.1	0
125	A Pilot Study of Aerosolization of InfectiousÂMurine Norovirus in an Experimental Setup. Food and Environmental Virology, 0, , .	3.4	0
126	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

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127	Vertical distribution of ice nucleating particles over the boreal forest of HyytiÃlÃ, Finland. Atmospheric Chemistry and Physics, 2024, 24, 11305-11332.	4.9	0