

Katrianne Lehtipalo

List of Publications by Year in descending order

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Version: 2024-02-01

108
papers

10,927
citations

50244

46
h-index

33869

99
g-index

164
all docs

164
docs citations

164
times ranked

4960
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards a concentration closure of sub-6 nm aerosol particles and sub-3 nm atmospheric clusters. <i>Journal of Aerosol Science</i> , 2022, 159, 105878.	1.8	9
2	Combining instrument inversions for sub-10 nm aerosol number size-distribution measurements. <i>Journal of Aerosol Science</i> , 2022, 159, 105862.	1.8	9
3	The standard operating procedure for Airmodus Particle Size Magnifier and nano-Condensation Nucleus Counter. <i>Journal of Aerosol Science</i> , 2022, 159, 105896.	1.8	11
4	Activation of sub-3 nm organic particles in the particle size magnifier using humid and dry conditions. <i>Journal of Aerosol Science</i> , 2022, 161, 105945.	1.8	3
5	Tropical and Boreal Forest " Atmosphere Interactions: A Review. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 74, 24.	0.8	27
6	Survival of newly formed particles in haze conditions. <i>Environmental Science Atmospheres</i> , 2022, 2, 491-499.	0.9	8
7	Measurement report: Long-term measurements of aerosol precursor concentrations in the Finnish subarctic boreal forest. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 2237-2254.	1.9	6
8	What controls the observed size-dependency of the growth rates of sub-10 nm atmospheric particles?. <i>Environmental Science Atmospheres</i> , 2022, 2, 449-468.	0.9	5
9	An evaluation of new particle formation events in Helsinki during a Baltic Sea cyanobacterial summer bloom. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 6365-6391.	1.9	6
10	Synergistic HNO ₃ "H ₂ SO ₄ "NH ₃ upper tropospheric particle formation. <i>Nature</i> , 2022, 605, 483-489.	13.7	26
11	Biogenic particles formed in the Himalaya as an important source of free tropospheric aerosols. <i>Nature Geoscience</i> , 2021, 14, 4-9.	5.4	40
12	Determination of the collision rate coefficient between charged iodine acid clusters and iodine acid using the appearance time method. <i>Aerosol Science and Technology</i> , 2021, 55, 231-242.	1.5	18
13	Long-term measurement of sub-3 nm particles and their precursor gases in the boreal forest. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 695-715.	1.9	14
14	Molecular characterization of ultrafine particles using extractive electrospray time-of-flight mass spectrometry. <i>Environmental Science Atmospheres</i> , 2021, 1, 434-448.	0.9	10
15	Role of iodine oxoacids in atmospheric aerosol nucleation. <i>Science</i> , 2021, 371, 589-595.	6.0	94
16	The Synergistic Role of Sulfuric Acid, Bases, and Oxidized Organics Governing New Particle Formation in Beijing. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091944.	1.5	53
17	Towards understanding the characteristics of new particle formation in the Eastern Mediterranean. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 9223-9251.	1.9	19
18	Zeppelin-led study on the onset of new particle formation in the planetary boundary layer. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 12649-12663.	1.9	9

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19	The driving factors of new particle formation and growth in the polluted boundary layer. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 14275-14291.	1.9	38
20	Emerging Investigator Series: COVID-19 lockdown effects on aerosol particle size distributions in northern Italy. <i>Environmental Science Atmospheres</i> , 2021, 1, 214-227.	0.9	12
21	Effects of different correction algorithms on absorption coefficient α_{a} a comparison of three optical absorption photometers at a boreal forest site. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 6419-6441.	1.2	8
22	Low-Volatility Vapors and New Particle Formation Over the Southern Ocean During the Antarctic Circumnavigation Expedition. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD035126.	1.2	14
23	Chemical composition of nanoparticles from α -pinene nucleation and the influence of isoprene and relative humidity at low temperature. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 17099-17114.	1.9	12
24	Wintertime subarctic new particle formation from Kola Peninsula sulfur emissions. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 17559-17576.	1.9	9
25	Rapid growth of new atmospheric particles by nitric acid and ammonia condensation. <i>Nature</i> , 2020, 581, 184-189.	13.7	169
26	Size-dependent influence of NO _x on the growth rates of organic aerosol particles. <i>Science Advances</i> , 2020, 6, eaay4945.	4.7	61
27	Overview of measurements and current instrumentation for $1\text{--}10\text{ nm}$ aerosol particle number size distributions. <i>Journal of Aerosol Science</i> , 2020, 148, 105584.	1.8	58
28	Photo-oxidation of Aromatic Hydrocarbons Produces Low-Volatility Organic Compounds. <i>Environmental Science & Technology</i> , 2020, 54, 7911-7921.	4.6	66
29	Enhanced growth rate of atmospheric particles from sulfuric acid. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 7359-7372.	1.9	58
30	Formation and growth of sub-3-nm aerosol particles in experimental chambers. <i>Nature Protocols</i> , 2020, 15, 1013-1040.	5.5	49
31	Molecular understanding of the suppression of new-particle formation by isoprene. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 11809-11821.	1.9	49
32	Molecular understanding of new-particle formation from α -pinene between ~ 50 and $+25\text{ }^\circ\text{C}$. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 9183-9207.	1.9	68
33	Overview of the Antarctic Circumnavigation Expedition: Study of Preindustrial-like Aerosols and Their Climate Effects (ACE-SPACE). <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 2260-2283.	1.7	71
34	New Particle Formation in the Atmosphere: From Molecular Clusters to Global Climate. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 7098-7146.	1.2	185
35	Molecular Composition and Volatility of Nucleated Particles from α -Pinene Oxidation between ~ 50 $^\circ\text{C}$ and $+25$ $^\circ\text{C}$. <i>Environmental Science & Technology</i> , 2019, 53, 12357-12365.	4.6	32
36	Vertical profiles of sub-3-nm particles over the boreal forest. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 4127-4138.	1.9	20

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37	Formation of Highly Oxygenated Organic Molecules from α -Pinene Ozonolysis: Chemical Characteristics, Mechanism, and Kinetic Model Development. <i>ACS Earth and Space Chemistry</i> , 2019, 3, 873-883.	1.2	52
38	Measurement of model comparison of stabilized Criegee intermediate and highly oxygenated molecule production in the CLOUD chamber. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 2363-2380.	1.9	21
39	New particle formation in the sulfuric acid-dimethylamine-water system: reevaluation of CLOUD chamber measurements and comparison to an aerosol nucleation and growth model. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 845-863.	1.9	92
40	Influence of temperature on the molecular composition of ions and charged clusters during pure biogenic nucleation. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 65-79.	1.9	56
41	Observations of biogenic ion-induced cluster formation in the atmosphere. <i>Science Advances</i> , 2018, 4, eaar5218.	4.7	64
42	Multicomponent new particle formation from sulfuric acid, ammonia, and biogenic vapors. <i>Science Advances</i> , 2018, 4, eaau5363.	4.7	164
43	The role of H_2SO_4 - NH_3 anion clusters in ion-induced aerosol nucleation mechanisms in the boreal forest. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 13231-13243.	1.9	33
44	Rapid growth of organic aerosol nanoparticles over a wide tropospheric temperature range. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 9122-9127.	3.3	118
45	First measurements of the number size distribution of 1-2 nm aerosol particles released from manufacturing processes in a cleanroom environment. <i>Aerosol Science and Technology</i> , 2017, 51, 685-693.	1.5	12
46	Solar eclipse demonstrating the importance of photochemistry in new particle formation. <i>Scientific Reports</i> , 2017, 7, 45707.	1.6	29
47	Causes and importance of new particle formation in the present-day and preindustrial atmospheres. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 8739-8760.	1.2	198
48	The role of ions in new particle formation in the CLOUD chamber. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 15181-15197.	1.9	50
49	Measurements of sub-3 nm particles using a particle size magnifier in different environments: from clean mountain top to polluted megacities. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 2163-2187.	1.9	71
50	Long-term analysis of clear-sky new particle formation events and nonevents in Hyytiälä. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 6227-6241.	1.9	84
51	A new high-transmission inlet for the Caltech nano-RDMA for size distribution measurements of sub-3 nm ions at ambient concentrations. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 2709-2720.	1.2	14
52	Operation of the Airmodus A11 nano Condensation Nucleus Counter at various inlet pressures and various operation temperatures, and design of a new inlet system. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 2977-2988.	1.2	35
53	Effect of ions on sulfuric acid-water binary particle formation: 2. Experimental data and comparison with QC-normalized classical nucleation theory. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 1752-1775.	1.2	99
54	Comparison of the SAWNUC model with CLOUD measurements of sulphuric acid-water nucleation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 12401-12414.	1.2	16

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55	Effect of dimethylamine on the gas phase sulfuric acid concentration measured by Chemical Ionization Mass Spectrometry. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 3036-3049.	1.2	17
56	Experimental particle formation rates spanning tropospheric sulfuric acid and ammonia abundances, ion production rates, and temperatures. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 12,377.	1.2	71
57	The role of low-volatility organic compounds in initial particle growth in the atmosphere. <i>Nature</i> , 2016, 533, 527-531.	13.7	540
58	Ion-induced nucleation of pure biogenic particles. <i>Nature</i> , 2016, 533, 521-526.	13.7	528
59	Reduced anthropogenic aerosol radiative forcing caused by biogenic new particle formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 12053-12058.	3.3	107
60	Modeling the thermodynamics and kinetics of sulfuric acid-dimethylamine-water nanoparticle growth in the CLOUD chamber. <i>Aerosol Science and Technology</i> , 2016, 50, 1017-1032.	1.5	13
61	Global atmospheric particle formation from CERN CLOUD measurements. <i>Science</i> , 2016, 354, 1119-1124.	6.0	289
62	The effect of acid-base clustering and ions on the growth of atmospheric nano-particles. <i>Nature Communications</i> , 2016, 7, 11594.	5.8	116
63	A chamber study of the influence of boreal BVOC emissions and sulfuric acid on nanoparticle formation rates at ambient concentrations. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 1955-1970.	1.9	9
64	Unexpectedly acidic nanoparticles formed in dimethylamine-ammonia-sulfuric-acid nucleation experiments at CLOUD. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 13601-13618.	1.9	24
65	High concentrations of sub-3nm clusters and frequent new particle formation observed in the Po Valley, Italy, during the PEGASOS 2012 campaign. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 1919-1935.	1.9	25
66	Hygroscopicity of nanoparticles produced from homogeneous nucleation in the CLOUD experiments. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 293-304.	1.9	29
67	Growth of atmospheric clusters involving cluster-cluster collisions: comparison of different growth rate methods. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 5545-5560.	1.9	16
68	The versatile size analyzing nuclei counter (vSANC). <i>Aerosol Science and Technology</i> , 2016, 50, 947-958.	1.5	7
69	Heterogeneous Nucleation onto Ions and Neutralized Ions: Insights into Sign-Preference. <i>Journal of Physical Chemistry C</i> , 2016, 120, 7444-7450.	1.5	45
70	Major contribution of neutral clusters to new particle formation at the interface between the boundary layer and the free troposphere. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 3413-3428.	1.9	42
71	Experimental investigation of ion-ion recombination under atmospheric conditions. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 7203-7216.	1.9	46
72	Elemental composition and clustering behaviour of α -pinene oxidation products for different oxidation conditions. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 4145-4159.	1.9	17

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73	Technical Note: Using DEG-CPCs at upper tropospheric temperatures. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 7547-7555.	1.9	11
74	On the composition of ammonia-sulfuric-acid ion clusters during aerosol particle formation. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 55-78.	1.9	84
75	Sulphuric acid and aerosol particle production in the vicinity of an oil refinery. <i>Atmospheric Environment</i> , 2015, 119, 156-166.	1.9	29
76	Sizing of neutral sub 3nm tungsten oxide clusters using Airmodus Particle Size Magnifier. <i>Journal of Aerosol Science</i> , 2015, 87, 53-62.	1.8	37
77	Sub-3 nm particle size and composition dependent response of a nano-CPC battery. <i>Atmospheric Measurement Techniques</i> , 2014, 7, 689-700.	1.2	73
78	Insight into Acid-Base Nucleation Experiments by Comparison of the Chemical Composition of Positive, Negative, and Neutral Clusters. <i>Environmental Science & Technology</i> , 2014, 48, 13675-13684.	4.6	51
79	Oxidation Products of Biogenic Emissions Contribute to Nucleation of Atmospheric Particles. <i>Science</i> , 2014, 344, 717-721.	6.0	456
80	Neutral molecular cluster formation of sulfuric acid-dimethylamine observed in real time under atmospheric conditions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 15019-15024.	3.3	208
81	Growth rates of atmospheric molecular clusters based on appearance times and collision-evaporation fluxes: Growth by monomers. <i>Journal of Aerosol Science</i> , 2014, 78, 55-70.	1.8	20
82	Trends in new particle formation in eastern Lapland, Finland: effect of decreasing sulfur emissions from Kola Peninsula. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 4383-4396.	1.9	36
83	Molecular understanding of sulphuric acid-amine particle nucleation in the atmosphere. <i>Nature</i> , 2013, 502, 359-363.	13.7	774
84	Direct Observations of Atmospheric Aerosol Nucleation. <i>Science</i> , 2013, 339, 943-946.	6.0	876
85	The particle size magnifier closing the gap between measurement of molecules, molecular clusters and aerosol particles. , 2013, , .		0
86	Ion generation and CPC detection efficiency studies in sub 3-nm size range. , 2013, , .		0
87	Laboratory characterization of a size-resolved CPC battery to infer the composition of freshly formed atmospheric nuclei. , 2013, , .		0
88	Characterization of diethylene glycol-condensation particle counters for detection of sub-3 nm particles. , 2013, , .		2
89	Sulphur dioxide and sulphuric acid concentrations in the vicinity of Kilpilahti industrial area. , 2013, , .		0
90	Performance of diethylene glycol-based particle counters in the sub-3 nm size range. <i>Atmospheric Measurement Techniques</i> , 2013, 6, 1793-1804.	1.2	63

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91	Remarks on Ion Generation for CPC Detection Efficiency Studies in Sub-3-nm Size Range. <i>Aerosol Science and Technology</i> , 2013, 47, 556-563.	1.5	70
92	Molecular understanding of atmospheric particle formation from sulfuric acid and large oxidized organic molecules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 17223-17228.	3.3	300
93	Estimating the contribution of ion-ion recombination to sub-2 nm cluster concentrations from atmospheric measurements. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 11391-11401.	1.9	25
94	Evolution of particle composition in CLOUD nucleation experiments. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 5587-5600.	1.9	33
95	Measurement of the nucleation of atmospheric aerosol particles. <i>Nature Protocols</i> , 2012, 7, 1651-1667.	5.5	435
96	Role of sulphuric acid, ammonia and galactic cosmic rays in atmospheric aerosol nucleation. <i>Nature</i> , 2011, 476, 429-433.	13.7	1,114
97	Seasonal variation of CCN concentrations and aerosol activation properties in boreal forest. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 13269-13285.	1.9	121
98	Organic condensation: a vital link connecting aerosol formation to cloud condensation nuclei (CCN) concentrations. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 3865-3878.	1.9	392
99	Observations of Nano-CN in the Nocturnal Boreal Forest. <i>Aerosol Science and Technology</i> , 2011, 45, 499-509.	1.5	43
100	Atmospheric ions and nucleation: a review of observations. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 767-798.	1.9	228
101	Particle Size Magnifier for Nano-CN Detection. <i>Aerosol Science and Technology</i> , 2011, 45, 533-542.	1.5	283
102	Intercomparison of air ion spectrometers: an evaluation of results in varying conditions. <i>Atmospheric Measurement Techniques</i> , 2011, 4, 805-822.	1.2	34
103	EUCAARI ion spectrometer measurements at 12 European sites - analysis of new particle formation events. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 7907-7927.	1.9	248
104	Nanoparticles in boreal forest and coastal environment: a comparison of observations and implications of the nucleation mechanism. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 7009-7016.	1.9	42
105	Laboratory Verification of PH-CPC's Ability to Monitor Atmospheric Sub-3 nm Clusters. <i>Aerosol Science and Technology</i> , 2009, 43, 126-135.	1.5	80
106	Analysis of atmospheric neutral and charged molecular clusters in boreal forest using pulse-height CPC. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 4177-4184.	1.9	59
107	Results of the first air ion spectrometer calibration and intercomparison workshop. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 141-154.	1.9	85
108	Applicability of condensation particle counters to measure atmospheric clusters. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 4049-4060.	1.9	74