Miikka Dal Maso

List of Publications by Year
in descending order

116 papers	12,367 citations	57719 44 h-index	32815 100 g-index
144 all docs	144 docs citations	144 times ranked	6494 citing authors

#	Article	IF	Citations
1	Formation and growth rates of ultrafine atmospheric particles: a review of observations. Journal of Aerosol Science, 2004, 35, 143-176.	1.8	2,034
2	A large source of low-volatility secondary organic aerosol. Nature, 2014, 506, 476-479.	13.7	1,448
3	Toward Direct Measurement of Atmospheric Nucleation. Science, 2007, 318, 89-92.	6.0	478
4	High Natural Aerosol Loading over Boreal Forests. Science, 2006, 312, 261-263.	6.0	447
5	Atmospheric sulphuric acid and aerosol formation: implications from atmospheric measurements for nucleation and early growth mechanisms. Atmospheric Chemistry and Physics, 2006, 6, 4079-4091.	1.9	444
6	Measurement of the nucleation of atmospheric aerosol particles. Nature Protocols, 2012, 7, 1651-1667.	5.5	435
7	A new feedback mechanism linking forests, aerosols, and climate. Atmospheric Chemistry and Physics, 2004, 4, 557-562.	1.9	337
8	Connections between atmospheric sulphuric acid and new particle formation during QUEST IIIâ€"IV campaigns in Heidelberg and HyytiÃlÃ. Atmospheric Chemistry and Physics, 2007, 7, 1899-1914.	1.9	329
9	Organic nitrate and secondary organic aerosol yield from NO₃ oxidation of Î²-pinene evaluated using a gas-phase kinetics/aerosol partitioning model. Atmospheric Chemistry and Physics, 2009, 9, 1431-1449.	1.9	277
10	New particle formation in Beijing, China: Statistical analysis of a 1-year data set. Journal of Geophysical Research, 2007, 112, .	3.3	257
11	New particle formation in forests inhibited by isoprene emissions. Nature, 2009, 461, 381-384.	13.7	253
12	Gas phase formation of extremely oxidized pinene reaction products in chamber and ambient air. Atmospheric Chemistry and Physics, 2012, 12, 5113-5127.	1.9	222
13	On the formation, growth and composition of nucleation mode particles. Tellus, Series B: Chemical and Physical Meteorology, 2001, 53, 479-490.	0.8	221
14	Condensation and coagulation sinks and formation of nucleation mode particles in coastal and boreal forest boundary layers. Journal of Geophysical Research, 2002, 107, PAR 2-1.	3.3	205
15	On the growth of nucleation mode particles: source rates of condensable vapor in polluted and clean environments. Atmospheric Chemistry and Physics, 2005, 5, 409-416.	1.9	205
16	The role of VOC oxidation products in continental new particle formation. Atmospheric Chemistry and Physics, 2008, 8, 2657-2665.	1.9	202
17	Nucleation and growth of new particles in Po Valley, Italy. Atmospheric Chemistry and Physics, 2007, 7, 355-376.	1.9	179
18	Sulphuric acid closure and contribution to nucleation mode particle growth. Atmospheric Chemistry and Physics, 2005, 5, 863-878.	1.9	178

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19	Growth rates of nucleation mode particles in HyytiÃlÃ during 2003â˘2009: variation with particle size, season, data analysis method and ambient conditions. Atmospheric Chemistry and Physics, 2011, 11, 12865-12886.	1.9	173
20	Estimating nucleation rates from apparent particle formation rates and vice versa: Revised formulation of the Kerminenâ€"Kulmala equation. Journal of Aerosol Science, 2007, 38, 988-994.	1.8	172
21	Traffic is a major source of atmospheric nanocluster aerosol. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7549-7554.	3.3	171
22	Atmospheric nucleation: highlights of the EUCAARI project and future directions. Atmospheric Chemistry and Physics, 2010, 10, 10829-10848.	1.9	144
23	Gas-aerosol relationships of H2SO4, MSA, and OH: Observations in the coastal marine boundary layer at Mace Head, Ireland. Journal of Geophysical Research, 2002, 107, PAR 5-1.	3.3	137
24	Photochemical production of aerosols from real plant emissions. Atmospheric Chemistry and Physics, 2009, 9, 4387-4406.	1.9	133
25	Aerosol size distribution measurements at four Nordic field stations: identification, analysis and trajectory analysis of new particle formation bursts. Tellus, Series B: Chemical and Physical Meteorology, 2007, 59, 350-361.	0.8	131
26	The contribution of sulphuric acid to atmospheric particle formation and growth: a comparison between boundary layers in Northern and Central Europe. Atmospheric Chemistry and Physics, 2005, 5, 1773-1785.	1.9	127
27	One year boundary layer aerosol size distribution data from five nordic background stations. Atmospheric Chemistry and Physics, 2003, 3, 2183-2205.	1.9	123
28	Identification and classification of the formation of intermediate ions measured in boreal forest. Atmospheric Chemistry and Physics, 2007, 7, 201-210.	1.9	114
29	The summertime Boreal forest field measurement intensive (HUMPPA-COPEC-2010): an overview of meteorological and chemical influences. Atmospheric Chemistry and Physics, 2011, 11, 10599-10618.	1.9	108
30	Production, growth and properties of ultrafine atmospheric aerosol particles in an urban environment. Atmospheric Chemistry and Physics, 2011, 11, 1339-1353.	1.9	108
31	Secondary aerosol formation from stress-induced biogenic emissions and possible climate feedbacks. Atmospheric Chemistry and Physics, 2013, 13, 8755-8770.	1.9	96
32	Atmospheric particle formation events at VÃrriÃ¶ measurement station in Finnish Lapland 1998-2002. Atmospheric Chemistry and Physics, 2004, 4, 2015-2023.	1.9	92
33	Atmospheric data over a solar cycle: no connection between galactic cosmic rays and new particle formation. Atmospheric Chemistry and Physics, 2010, 10, 1885-1898.	1.9	89
34	A look at aerosol formation using data mining techniques. Atmospheric Chemistry and Physics, 2005, 5, 3345-3356.	1.9	87
35	Determination of isoprene and Î±â€/Î²â€pinene oxidation products in boreal forest aerosols from HyytiÃlÃ, Finland: diel variations and possible link with particle formation events. Plant Biology, 2008, 10, 138-149.	1.8	81
36	Time-resolved characterization of primary particle emissions and secondary particle formation from a modern gasoline passenger car. Atmospheric Chemistry and Physics, 2016, 16, 8559-8570.	1.9	76

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37	Observation of regional new particle formation in the urban atmosphere. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 509.	0.8	73
38	Annual and interannual variation in boreal forest aerosol particle number and volume concentration and their connection to particle formation. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 495.	0.8	72
39	Seasonal cycle, size dependencies, and source analyses of aerosol optical properties at the SMEAR II measurement station in HyytiÃlÃ, Finland. Atmospheric Chemistry and Physics, 2011, 11, 4445-4468.	1.9	72
40	Major secondary aerosol formation in southern African open biomass burning plumes. Nature Geoscience, 2018, 11, 580-583.	5.4	72
41	Characterization of new particle formation events at a background site in Southern Sweden: relation to air mass history. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 330.	0.8	70
42	Horizontal homogeneity and vertical extent of new particle formation events. Tellus, Series B: Chemical and Physical Meteorology, 2007, 59, 362-371.	0.8	66
43	Sub-micron atmospheric aerosols in the surroundings of Marseille and Athens: physical characterization and new particle formation. Atmospheric Chemistry and Physics, 2007, 7, 2705-2720.	1.9	64
44	Time span and spatial scale of regional new particle formation events over Finland and Southern Sweden. Atmospheric Chemistry and Physics, 2009, 9, 4699-4716.	1.9	64
45	Overview of the field measurement campaign in HyytiÃlÃ, August 2001 in the framework of the EU project OSOA. Atmospheric Chemistry and Physics, 2004, 4, 657-678.	1.9	56
46	Influence of fuel ethanol content on primary emissions and secondary aerosol formation potential for a modern flex-fuel gasoline vehicle. Atmospheric Chemistry and Physics, 2017, 17, 5311-5329.	1.9	55
47	Surfactant effects in global simulations of cloud droplet activation. Geophysical Research Letters, 2012, 39, .	1.5	51
48	Antarctic new particle formation from continental biogenic precursors. Atmospheric Chemistry and Physics, 2013, 13, 3527-3546.	1.9	50
49	Source specific exposure and risk assessment for indoor aerosols. Science of the Total Environment, 2019, 668, 13-24.	3.9	49
50	Aerosol particle formation events and analysis of high growth rates observed above a subarctic wetlandâ€"forest mosaic. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 353.	0.8	48
51	A simple representation of surface active organic aerosol in cloud droplet formation. Atmospheric Chemistry and Physics, 2011, 11, 4073-4083.	1.9	48
52	Comparative study of nucleation mode aerosol particles and intermediate air ions formation events at three sites. Journal of Geophysical Research, 2004, 109, .	3.3	47
53	Vertical profiles of lung deposited surface area concentration of particulate matter measured with a drone in a street canyon. Environmental Pollution, 2018, 241, 96-105.	3.7	46
54	A new oxidation flow reactor for measuring secondary aerosol formation of rapidly changing emission sources. Atmospheric Measurement Techniques, 2017, 10, 1519-1537.	1.2	44

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55	Toward Rigorous Materials Production: New Approach Methodologies Have Extensive Potential to Improve Current Safety Assessment Practices. Small, 2020, 16, e1904749.	5.2	43
56	Analysis of particle formation bursts observed in Finland. Journal of Aerosol Science, 2001, 32, 217-236.	1.8	42
57	SO₂ oxidation products other than H₂SO₄ as a trigger of new particle formation. Part 2: Comparison of ambient and laboratory measurements, and atmospheric implications. Atmospheric Chemistry and Physics, 2008, 8, 7255-7264.	1.9	41
58	Surface/bulk partitioning and acid/base speciation of aqueous decanoate: direct observations and atmospheric implications. Atmospheric Chemistry and Physics, 2012, 12, 12227-12242.	1.9	41
59	Airport emission particles: exposure characterization and toxicity following intratracheal instillation in mice. Particle and Fibre Toxicology, 2019, 16, 23.	2.8	41
60	Trajectory analysis of atmospheric transport of fine particles, SO₂, NO_x and O₃ to the SMEAR II station in Finland in 1996â€“2008. Atmospheric Chemistry and Physics, 2013, 13, 2153-2164.	1.9	38
61	Characterization of laboratory and real driving emissions of individual Euro 6 light-duty vehicles â€“ Fresh particles and secondary aerosol formation. Environmental Pollution, 2019, 255, 113175.	3.7	38
62	New aerosol particle formation in different synoptic situations at HyytiÃ¤lÃ¤, Southern Finland. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 485.	0.8	37
63	Trends in new particle formation in eastern Lapland, Finland: effect of decreasing sulfur emissions from Kola Peninsula. Atmospheric Chemistry and Physics, 2014, 14, 4383-4396.	1.9	36
64	Traffic-originated nanocluster emission exceeds H₂SO₄-driven photochemical new particle formation in an urban area. Atmospheric Chemistry and Physics, 2020, 20, 1-13.	1.9	36
65	The natural aerosol over Northern Europe and its relation to anthropogenic emissionsâ€"implications of important climate feedbacks. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 473.	0.8	34
66	Testing the near field/far field model performance for prediction of particulate matter emissions in a paint factory. Environmental Sciences: Processes and Impacts, 2015, 17, 62-73.	1.7	30
67	Critical cluster size cannot in practice be determined by slope analysis in atmospherically relevant applications. Journal of Aerosol Science, 2014, 77, 127-144.	1.8	29
68	Nanocluster Aerosol Emissions of a 3D Printer. Environmental Science & Technology, 2019, 53, 13618-13628.	4.6	29
69	Ambient sesquiterpene concentration and its link to air ion measurements. Atmospheric Chemistry and Physics, 2007, 7, 2893-2916.	1.9	27
70	Particle emissions of Euro VI, EEV and retrofitted EEV city buses in real traffic. Environmental Pollution, 2019, 250, 708-716.	3.7	27
71	Comparison of Dust Release from Epoxy and Paint Nanocomposites and Conventional Products during Sanding and Sawing. Annals of Occupational Hygiene, 2014, 58, 983-94.	1.9	26
72	Direct field evidence of autocatalytic iodine release from atmospheric aerosol. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	25

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73	Evaluating environmental risk assessment models for nanomaterials according to requirements along the product innovation Stage-Gate process. Environmental Science: Nano, 2019, 6, 505-518.	2.2	24
74	Analysis of particle size distribution changes between three measurement sites in northern Scandinavia. Atmospheric Chemistry and Physics, 2013, 13, 11887-11903.	1.9	22
75	Modelling the contribution of biogenic volatile organic compounds to new particle formation in the JÃ¼lich plant atmosphere chamber. Atmospheric Chemistry and Physics, 2015, 15, 10777-10798.	1.9	19
76	Temperature influence on the natural aerosol budget over boreal forests. Atmospheric Chemistry and Physics, 2014, 14, 8295-8308.	1.9	18
77	Directions in QPPR development to complement the predictive models used in risk assessment of nanomaterials. NanoImpact, 2018, 11, 58-66.	2.4	18
78	Prescribed burning of logging slash in the boreal forest of Finland: emissions and effects on meteorological quantities and soil properties. Atmospheric Chemistry and Physics, 2014, 14, 4473-4502.	1.9	17
79	New particle formation in the fresh flue-gas plume from a coal-fired power plant: effect of flue-gas cleaning. Atmospheric Chemistry and Physics, 2016, 16, 7485-7496.	1.9	17
80	Monitoring urban air quality with a diffusion charger based electrical particle sensor. Urban Climate, 2015, 14, 441-456.	2.4	16
81	Modal characteristics of particulate matter in urban atmospheric aerosols. Microchemical Journal, 2002, 73, 19-26.	2.3	15
82	Contribution of mixing in the ABL to new particle formation based on observations. Atmospheric Chemistry and Physics, 2007, 7, 4781-4792.	1.9	15
83	Comparison of Geometrical Layouts for a Multi-Box Aerosol Model from a Single-Chamber Dispersion Study. Environments - MDPI, 2018, 5, 52.	1.5	14
84	Dispersion of a Traffic Related Nanocluster Aerosol Near a Major Road. Atmosphere, 2019, 10, 309.	1.0	14
85	Atmospheric new particle formation at UtÃ¶, Baltic Sea 2003-2005. Tellus, Series B: Chemical and Physical Meteorology, 2008, 60, 345-352.	0.8	13
86	CFD modeling of a vehicle exhaust laboratory sampling system: sulfur-driven nucleation and growth in diluting diesel exhaust. Atmospheric Chemistry and Physics, 2015, 15, 5305-5323.	1.9	13
87	Measurement report: The influence of traffic and new particle formation on the size distribution of 1â€“800â€‰nm particles in Helsinki â€“ a street canyon and an urban background station comparison. Atmospheric Chemistry and Physics, 2021, 21, 9931-9953.	1.9	13
88	On particle formation prediction in continental boreal forest using micrometeorological parameters. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	10
89	Deposition of dry particles on a fin-and-tube heat exchanger by a coupled soft-sphere DEM and CFD. International Journal of Heat and Mass Transfer, 2020, 149, 119046.	2.5	10
90	Ranking of human risk assessment models for manufactured nanomaterials along the Cooper stage-gate innovation funnel using stakeholder criteria. NanoImpact, 2020, 17, 100191.	2.4	10

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91	A chamber study of the influence of boreal BVOC emissions and sulfuric acid on nanoparticle formation rates at ambient concentrations. Atmospheric Chemistry and Physics, 2016, 16, 1955-1970.	1.9	9
92	Using a combined power law and log-normal distribution model to simulate particle formation and growth in a mobile aerosol chamber. Atmospheric Chemistry and Physics, 2016, 16, 7067-7090.	1.9	8
93	HELIOS/SICRIT/mass spectrometry for analysis of aerosols in engine exhaust. Aerosol Science and Technology, 2021, 55, 886-900.	1.5	8
94	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.	1.9	8
95	Observational evidence for aerosols increasing upper tropospheric humidity. Atmospheric Chemistry and Physics, 2016, 16, 14331-14342.	1.9	7
96	Performance of the IMERG Precipitation Products over High-latitudes Region of Finland. Remote Sensing, 2021, 13, 2073.	1.8	7
97	Improving Urban Air Quality Measurements by a Diffusion Charger Based Electrical Particle Sensors - A Field Study in Beijing, China. Aerosol and Air Quality Research, 2016, 16, 3001-3011.	0.9	7
98	Description and evaluation of the community aerosol dynamics model MAFOR v2.0. Geoscientific Model Development, 2022, 15, 3969-4026.	1.3	7
99	Inversely modeling homogeneous H₂SO₄â€‰âˆ’â€‰H<sub>2&am nucleation rate in exhaust-related conditions. Atmospheric Chemistry and Physics, 2019, 19, 6367-6388.	1.9	6
100	Parametric CFD study for finding the optimal tube arrangement of a fin-and-tube heat exchanger with plain fins in a marine environment. Applied Thermal Engineering, 2022, 200, 117642.	3.0	6
101	Contribution of traffic-originated nanoparticle emissions to regional and local aerosol levels. Atmospheric Chemistry and Physics, 2022, 22, 1131-1148.	1.9	6
102	Analytical expression for gas-particle equilibration time scale and its numerical evaluation. Atmospheric Environment, 2016, 133, 34-40.	1.9	4
103	Detection of gaseous species during KClâ€induced highâ€temperature corrosion by the means of CPFAAS and Clâ€APiâ€TOF. Materials and Corrosion - Werkstoffe Und Korrosion, 2020, 71, 222-231.	0.8	3
104	The Effect of Sampling Inlet Direction and Distance on Particle Source Measurements for Dispersion Modelling. Aerosol and Air Quality Research, 2019, 19, 1114-1125.	0.9	2
105	CFD modeling the diffusional losses of nanocluster-sized particles and condensing vapors in 90Â° bends of circular tubes. Journal of Aerosol Science, 2020, 150, 105618.	1.8	1
106	Chemical and physical characterization of oil shale combustion emissions in Estonia. Atmospheric Environment: X, 2021, 12, 100139.	0.8	1
107	Local Scale Exposure and Fate of Engineered Nanomaterials. Toxics, 2022, 10, 354.	1.6	1
108	ATMOSPHERIC PARTICLE FORMATION EVENTS AT VÃ„RRIÃ– MEASUREMENT STATION 1998-2002. Journal of Aerosol Science, 2004, 35, S1045-S1046.	1.8	0

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109	NON-STEADY-STATE BINARY WATER-SULPHURIC ACID NUCLEATION MODEL. Journal of Aerosol Science, 2004, 35, S1199-S1200.	1.8	0
110	How to Utilise the Knowledge of Causal Responses?. , 2013, , 397-469.		0
111	Analysis of particle size distribution changes between three measurement sites in Northern Scandinavia. , 2013, , .		0
112	Aerosols may increase upper tropospheric humidity. , 2013, , .		0
113	Modelling new particle formation from Jul̀ˆlich plant atmosphere chamber and CERN CLOUD chamber measurements. , 2013, , .		0
114	The effect of early growth dynamics on determining particle formation rates of a nucleating burst. , 2013, , .		0
115	Long-term aerosol and trace gas measurements in Eastern Lapland, Finland: The impact of Kola air pollution to new particle formation. , 2013, , .		0
116	The impact of temperature on natural aerosol budget over boreal forests. , 2013, , .		0