Mika Komppula

List of Publications by Year
in descending order

73 papers	2,730 citations	257450 24 h-index	206112 48 g-index
77 all docs	77 docs citations	77 times ranked	3764 citing authors

#	Article	IF	Citations
1	The automated multiwavelength Raman polarization and water-vapor lidar Polly^{XT}: the neXT generation. Atmospheric Measurement Techniques, 2016, 9, 1767-1784.	3.1	249
2	An overview of the first decade of Polly^{NET}: an emerging network of automated Raman-polarization lidars for continuous aerosol profiling. Atmospheric Chemistry and Physics, 2016, 16, 5111-5137.	4.9	212
3	Direct observational evidence linking atmospheric aerosol formation and cloud droplet activation. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	195
4	Diurnal and annual characteristics of particle mass and number concentrations in urban, rural and Arctic environments in Finland. Atmospheric Environment, 2003, 37, 2629-2641.	4.1	167
5	Ambient air pollution in relation to diabetes and glucose-homoeostasis markers in China: a cross-sectional study with findings from the 33 Communities Chinese Health Study. Lancet Planetary Health, The, 2018, 2, e64-e73.	11.4	164
6	Portable Raman Lidar PollyXT for Automated Profiling of Aerosol Backscatter, Extinction, and Depolarization. Journal of Atmospheric and Oceanic Technology, 2009, 26, 2366-2378.	1.3	145
7	Association of Long-term Exposure to Ambient Air Pollutants With Risk Factors for Cardiovascular Disease in China. JAMA Network Open, 2019, 2, e190318.	5.9	143
8	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.	1.6	131
9	Measurements of cloud droplet activation of aerosol particles at a clean subarctic background site. Journal of Geophysical Research, 2005, 110, n/a-n/a.	3.3	93
10	Transformation of logwood combustion emissions in a smog chamber: formation of secondary organic aerosol and changes in the primary organic aerosol upon daytime and nighttime aging. Atmospheric Chemistry and Physics, 2016, 16, 13251-13269.	4.9	76
11	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.	1.6	72
12	BAECC: A Field Campaign to Elucidate the Impact of Biogenic Aerosols on Clouds and Climate. Bulletin of the American Meteorological Society, 2016, 97, 1909-1928.	3.3	71
13	Is smaller worse? New insights about associations of PM1 and respiratory health in children and adolescents. Environment International, 2018, 120, 516-524.	10.0	68
14	Emissions and atmospheric processes influence the chemical composition and toxicological properties of urban air particulate matter in Nanjing, China. Science of the Total Environment, 2018, 639, 1290-1310.	8.0	55
15	Optical and microphysical characterization of aerosol layers over South Africa by means of multi-wavelength depolarization and Raman lidar measurements. Atmospheric Chemistry and Physics, 2016, 16, 8109-8123.	4.9	51
16	Is PM1 similar to PM2.5? A new insight into the association of PM1 and PM2.5 with childrenâ€™s lung function. Environment International, 2020, 145, 106092.	10.0	43
17	Greenness around schools associated with lower risk of hypertension among children: Findings from the Seven Northeastern Cities Study in China. Environmental Pollution, 2020, 256, 113422.	7.5	42
18	Aerosol Chemical Composition in Cloud Events by High Resolution Time-of-Flight Aerosol Mass Spectrometry. Environmental Science & Technology, 2013, 47, 2645-2653.	10.0	40

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19	Urban air particulate matter induces mitochondrial dysfunction in human olfactory mucosal cells. Particle and Fibre Toxicology, 2020, 17, 18.	6.2	36
20	Association of Breastfeeding and Air Pollution Exposure With Lung Function in Chinese Children. JAMA Network Open, 2019, 2, e194186.	5.9	33
21	Role of microbial and chemical composition in toxicological properties of indoor and outdoor air particulate matter. Particle and Fibre Toxicology, 2014, 11, 60.	6.2	32
22	Long-term measurements of cloud droplet concentrations and aerosolâ€“cloud interactions in continental boundary layer clouds. Tellus, Series B: Chemical and Physical Meteorology, 2013, 65, 20138.	1.6	30
23	Optical and geometrical aerosol particle properties over the United Arab Emirates. Atmospheric Chemistry and Physics, 2020, 20, 8909-8922.	4.9	29
24	PM2.5 concentration and composition in the urban air of Nanjing, China: Effects of emission control measures applied during the 2014 Youth Olympic Games. Science of the Total Environment, 2019, 652, 1-18.	8.0	26
25	Associations of Particulate Matter Sizes and Chemical Constituents with Blood Lipids: A Panel Study in Guangzhou, China. Environmental Science & Technology, 2021, 55, 5065-5075.	10.0	25
26	In-cloud measurements highlight the role of aerosol hygroscopicity in cloud droplet formation. Atmospheric Chemistry and Physics, 2016, 16, 10385-10398.	4.9	24
27	Wind speed modeling using a vector autoregressive process with a time-dependent intercept term. International Journal of Electrical Power and Energy Systems, 2016, 77, 91-99.	5.5	24
28	Detection and characterization of birch pollen in the atmosphere using a multiwavelength Raman polarization lidar and Hirst-type pollen sampler in Finland. Atmospheric Chemistry and Physics, 2019, 19, 14559-14569.	4.9	24
29	Planetary boundary layer height by means of lidar and numerical simulations over New Delhi, India. Atmospheric Measurement Techniques, 2019, 12, 2595-2610.	3.1	23
30	Integrating farm and air pollution studies in search for immunoregulatory mechanisms operating in protective and highâ€risk environments. Pediatric Allergy and Immunology, 2018, 29, 815-822.	2.6	21
31	Optical characterization of pure pollen types using a multi-wavelength Raman polarization lidar. Atmospheric Chemistry and Physics, 2020, 20, 15323-15339.	4.9	21
32	Benefits of influenza vaccination on the associations between ambient air pollution and allergic respiratory diseases in children and adolescents: New insights from the Seven Northeastern Cities study in China. Environmental Pollution, 2020, 256, 113434.	7.5	20
33	Variability in cirrus cloud properties using a Polly^{XT} Raman lidar over high and tropical latitudes. Atmospheric Chemistry and Physics, 2020, 20, 4427-4444.	4.9	19
34	Biomass Burning Aerosols Observed in Northern Finland during the 2010 Wildfires in Russia. Atmosphere, 2013, 4, 17-34.	2.3	18
35	Lidar depolarization ratio of atmospheric pollen at multiple wavelengths. Atmospheric Chemistry and Physics, 2021, 21, 7083-7097.	4.9	18
36	Parameterization of cloud droplet activation using a simplified treatment of the aerosol number size distribution. Journal of Geophysical Research, 2008, 113, .	3.3	17

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37	Profiling water vapor mixing ratios in Finland by means of aÂRaman lidar, aÂsatellite and aÂmodel. Atmospheric Measurement Techniques, 2017, 10, 4303-4316.	3.1	17
38	Shortâ€Term Effects of Particle Size and Constituents on Blood Pressure in Healthy Young Adults in Guangzhou, China. Journal of the American Heart Association, 2021, 10, e019063.	3.7	17
39	A panel study of airborne particulate matter concentration and impaired cardiopulmonary function in young adults by two different exposure measurement. Atmospheric Environment, 2018, 180, 103-109.	4.1	16
40	Characterization of Chemical and Microbial Species from Size-Segregated Indoor and Outdoor Particulate Samples. Aerosol and Air Quality Research, 2013, 13, 1212-1230.	2.1	16
41	Representing situational knowledge acquired from sensor data for atmospheric phenomena. Environmental Modelling and Software, 2014, 58, 27-47.	4.5	15
42	Air quality intervention during the Nanjing youth olympic games altered PM sources, chemical composition, and toxicological responses. Environmental Research, 2020, 185, 109360.	7.5	14
43	Inflammatory responses of urban air PM modulated by chemical composition and different air quality situations in Nanjing, China. Environmental Research, 2021, 192, 110382.	7.5	14
44	Short-Term Effects of Particle Sizes and Constituents on Blood Biomarkers among Healthy Young Adults in Guangzhou, China. Environmental Science & Technology, 2021, 55, 5636-5647.	10.0	14
45	Fine and ultrafine airborne PM influence inflammation response of young adults and toxicological responses in vitro. Science of the Total Environment, 2022, 836, 155618.	8.0	13
46	PollyNET: a network of multiwavelength polarization Raman lidars. , 2013, , .		12
47	The Mineral Aerosol Profiling from Infrared Radiances (MAPIR) algorithm: version 4.1 description and evaluation. Atmospheric Measurement Techniques, 2019, 12, 3673-3698.	3.1	12
48	Urban air PM modifies differently immune defense responses against bacterial and viral infections in vitro. Environmental Research, 2021, 192, 110244.	7.5	12
49	Aerosol type classification analysis using EARLINET multiwavelength and depolarization lidar observations. Atmospheric Chemistry and Physics, 2021, 21, 2211-2227.	4.9	11
50	First Results from the German Cal/Val Activities for Aeolus. EPJ Web of Conferences, 2020, 237, 01008.	0.3	10
51	Ice-nucleating ability of particulate emissions from solid-biomass-fired cookstoves: an experimental study. Atmospheric Chemistry and Physics, 2020, 20, 4951-4968.	4.9	10
52	The role of influenza vaccination in mitigating the adverse impact of ambient air pollution on lung function in children: New insights from the Seven Northeastern Cities Study in China. Environmental Research, 2020, 187, 109624.	7.5	8
53	The potential of elastic and polarization lidars to retrieve extinction profiles. Atmospheric Measurement Techniques, 2020, 13, 893-905.	3.1	6
54	In situ cloud ground-based measurements in the Finnish sub-Arctic: intercomparison of three cloud spectrometer setups. Atmospheric Measurement Techniques, 2020, 13, 5129-5147.	3.1	6

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55	Winter and spring variation in sources, chemical components and toxicological responses of urban air particulate matter samples in Guangzhou, China. Science of the Total Environment, 2022, 845, 157382.	8.0	6
56	Aerosol particle depolarization ratio at 1565â€‰nm measured with a Halo Doppler lidar. Atmospheric Chemistry and Physics, 2021, 21, 5807-5820.	4.9	5
57	Aerosol particle characteristics measured in the United Arab Emirates and their response to mixing in the boundary layer. Atmospheric Chemistry and Physics, 2022, 22, 481-503.	4.9	5
58	Aerosolâ€“landscapeâ€“cloud interaction: signatures of topography effect on cloud droplet formation. Atmospheric Chemistry and Physics, 2017, 17, 7955-7964.	4.9	4
59	The Contribution of Black Carbon and Non-BC Absorbers on Aerosol Absorption Coefficient in Nanjing, China. Aerosol and Air Quality Research, 2020, , .	2.1	4
60	Intercomparison of holographic imaging and single-particle forward light scattering in situ measurements of liquid clouds in changing atmospheric conditions. Atmospheric Measurement Techniques, 2022, 15, 2993-3009.	3.1	4
61	Modification of caesarean section on the associations between air pollution and childhood asthma in seven Chinese cities. Environmental Pollution, 2020, 267, 115443.	7.5	3
62	Observations on aerosol optical properties and scavenging during cloud events. Atmospheric Chemistry and Physics, 2021, 21, 1683-1695.	4.9	3
63	Mass concentration estimates of long-range-transported Canadian biomass burning aerosols from a multi-wavelength Raman polarization lidar and a ceilometer in Finland. Atmospheric Measurement Techniques, 2021, 14, 6159-6179.	3.1	3
64	Particle number to volume concentration ratios at two measurement sites in Finland. Journal of Geophysical Research, 2007, 112, .	3.3	2
65	Using Aerosol Number to Volu me Ratio in Predicting Cloud Droplet Number Concentration. , 2007, , 551-555.		2
66	Pollen observations at four EARLINET stations during the ACTRIS-COVID-19 campaign. Atmospheric Chemistry and Physics, 2022, 22, 3931-3944.	4.9	2
67	Estimation of atmospheric particle formation rates through an analytical formula: validation and application in HyytiÃlÃ and Puijo, Finland. Atmospheric Chemistry and Physics, 2017, 17, 13361-13371.	4.9	1
68	PollyNET - an emerging network of automated raman-polarizarion lidars for continuous aerosolprofiling. EPJ Web of Conferences, 2018, 176, 09013.	0.3	1
69	First results of cirrus clouds properties by means of a pollyxt raman lidar at two measurement sites. EPJ Web of Conferences, 2018, 176, 05031.	0.3	1
70	Evaluating atmospheric icing forecasts with groundâ€based ceilometer profiles. Meteorological Applications, 2020, 27, e1964.	2.1	1
71	Particle emissions from a modern heavy-duty diesel engine as ice nuclei in immersion freezing mode: a laboratory study on fossil and renewable fuels. Atmospheric Chemistry and Physics, 2022, 22, 1615-1631.	4.9	1
72	Airborne Pollen Observed by PollyXT Raman Lidar at Finokalia, Crete. EPJ Web of Conferences, 2020, 237, 02005.	0.3	0

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73	Aerosol Typing Based on Multiwavelength Lidar Observations and Meteorological Model Data. EPJ Web of Conferences, 2020, 237, 08003.	0.3	0