Ronny Engelmann

List of Publications by Year
in descending order

113 papers	4,281 citations	109321 35 h-index	128289 60 g-index
163 all docs	163 docs citations	163 times ranked	3312 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	Continuous monitoring of the boundary-layer top with lidar. Atmospheric Chemistry and Physics, 2008, 8, 7281-7296.	4.9	226
3	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
4	The Convective and Orographicallyâ€induced Precipitation Study (COPS): the scientific strategy, the field phase, and research highlights. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 3-30.	2.7	181
5	Dust and smoke transport from Africa to South America: Lidar profiling over Cape Verde and the Amazon rainforest. Geophysical Research Letters, 2009, 36, .	4.0	146
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	The Arctic Cloud Puzzle: Using ACLOUD/PASCAL Multiplatform Observations to Unravel the Role of Clouds and Aerosol Particles in Arctic Amplification. Bulletin of the American Meteorological Society, 2019, 100, 841-871.	3.3	145
8	Depolarization and lidar ratios at 355, 532, and 1064â€‰nm and microphysical properties of aged tropospheric and stratospheric Canadian wildfire smoke. Atmospheric Chemistry and Physics, 2018, 18, 11847-11861.	4.9	132
9	Overview of the MOSAiC expedition: Atmosphere. Elementa, 2022, 10, .	3.2	121
10	Long-term profiling of mineral dust and pollution aerosol with multiwavelength polarization Raman lidar at the Central Asian site of Dushanbe, Tajikistan: case studies. Atmospheric Chemistry and Physics, 2017, 17, 14559-14577.	4.9	93
11	Extreme levels of Canadian wildfire smoke in the stratosphere over central Europe on 21â€“22 AugustÂ2017. Atmospheric Chemistry and Physics, 2018, 18, 11831-11845.	4.9	86
12	The unprecedented 2017â€“2018 stratospheric smoke event: decay phase and aerosol properties observed with the EARLINET. Atmospheric Chemistry and Physics, 2019, 19, 15183-15198.	4.9	83
13	Triple-wavelength depolarization-ratio profiling of Saharan dust over Barbados during SALTRACE in 2013 and 2014. Atmospheric Chemistry and Physics, 2017, 17, 10767-10794.	4.9	80
14	High aerosol load over the Pearl River Delta, China, observed with Raman lidar and Sun photometer. Geophysical Research Letters, 2005, 32, .	4.0	72
15	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
16	The water vapour intercomparison effort in the framework of the Convective and Orographicallyâ€induced Precipitation Study: airborneâ€toâ€groundâ€based and airborneâ€toâ€airborne lidar systems. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 325-348.	2.7	66
17	Target categorization of aerosol and clouds by continuous multiwavelength-polarization lidar measurements. Atmospheric Measurement Techniques, 2017, 10, 3175-3201.	3.1	66
18	Atmospheric boundary layer top height in South Africa: measurements with lidar and radiosonde compared to three atmospheric models. Atmospheric Chemistry and Physics, 2014, 14, 4263-4278.	4.9	65

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19	Smoke of extreme Australian bushfires observed in the stratosphere over Punta Arenas, Chile, in JanuaryÂ2020: optical thickness, lidar ratios, and depolarization ratios at 355 and 532â€‰nm. Atmospheric Chemistry and Physics, 2020, 20, 8003-8015.	4.9	65
20	Toward a quantitative characterization of heterogeneous ice formation with lidar/radar: Comparison of CALIPSO/CloudSat with groundâ€based observations. Geophysical Research Letters, 2013, 40, 4404-4408.	4.0	64
21	Technical Note: One year of Raman-lidar measurements in Gual Pahari EUCAARI site close to New Delhi in India â€“ Seasonal characteristics of the aerosol vertical structure. Atmospheric Chemistry and Physics, 2012, 12, 4513-4524.	4.9	63
22	Particle backscatter, extinction, and lidar ratio profiling with Raman lidar in south and north China. Applied Optics, 2007, 46, 6302.	2.1	59
23	EARLINET instrument intercomparison campaigns: overview on strategy and results. Atmospheric Measurement Techniques, 2016, 9, 1001-1023.	3.1	58
24	Northâ€south cross sections of the vertical aerosol distribution over the Atlantic Ocean from multiwavelength Raman/polarization lidar during Polarstern cruises. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2643-2655.	3.3	53
25	Retrieval of ice-nucleating particle concentrations from lidar observations and comparison with UAV in situ measurements. Atmospheric Chemistry and Physics, 2019, 19, 11315-11342.	4.9	53
26	1064â€¯nm rotational Raman lidar for particle extinction and lidar-ratio profiling: cirrus case study. Atmospheric Measurement Techniques, 2016, 9, 4269-4278.	3.1	52
27	Vertical profiles of aerosol mass concentration derived by unmanned airborne in situ and remote sensing instruments during dust events. Atmospheric Measurement Techniques, 2018, 11, 2897-2910.	3.1	50
28	Tracking the Saharan Air Layer with shipborne lidar across the tropical Atlantic. Geophysical Research Letters, 2014, 41, 1044-1050.	4.0	49
29	Ice-nucleating particle versus ice crystal number concentrationin altocumulus and cirrus layers embedded in Saharan dust:a closure study. Atmospheric Chemistry and Physics, 2019, 19, 15087-15115.	4.9	49
30	Lidar Observations of the Vertical Aerosol Flux in the Planetary Boundary Layer. Journal of Atmospheric and Oceanic Technology, 2008, 25, 1296-1306.	1.3	48
31	Updraft and downdraft characterization with Doppler lidar: cloud-free versus cumuli-topped mixed layer. Atmospheric Chemistry and Physics, 2010, 10, 7845-7858.	4.9	46
32	Tropospheric and stratospheric wildfire smoke profiling with lidar: mass, surface area, CCN, and INP retrieval. Atmospheric Chemistry and Physics, 2021, 21, 9779-9807.	4.9	45
33	Profiling of Saharan dust from the Caribbean to western Africa â€“ PartÂ2: Shipborne lidar measurements versus forecasts. Atmospheric Chemistry and Physics, 2017, 17, 14987-15006.	4.9	43
34	GARRLiC and LIRIC: strengths and limitations for the characterization of dust and marine particles along with their mixtures. Atmospheric Measurement Techniques, 2017, 10, 4995-5016.	3.1	42
35	Ship-borne aerosol profiling with lidar over the Atlantic Ocean: from pure marine conditions to complex dustâ€“smoke mixtures. Atmospheric Chemistry and Physics, 2018, 18, 9661-9679.	4.9	40
36	Relationship between temperature and apparent shape of pristine ice crystals derived from polarimetric cloud radar observations during the ACCEPT campaign. Atmospheric Measurement Techniques, 2016, 9, 3739-3754.	3.1	38

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37	Assessment of lidar depolarization uncertainty by means of a polarimetric lidar simulator. Atmospheric Measurement Techniques, 2016, 9, 4935-4953.	3.1	38
38	Wildfire smoke, Arctic haze, and aerosol effects on mixed-phase and cirrus clouds over the North Pole region during MOSAiC: an introduction. Atmospheric Chemistry and Physics, 2021, 21, 13397-13423.	4.9	36
39	Profiling of Saharan dust from the Caribbean to western Africa â€“ PartÂ1: Layering structures and optical properties from shipborneÂpolarization/Raman lidar observations. Atmospheric Chemistry and Physics, 2017, 17, 12963-12983.	4.9	35
40	Experimental techniques for the calibration of lidar depolarization channels in EARLINET. Atmospheric Measurement Techniques, 2018, 11, 1119-1141.	3.1	35
41	Californian Wildfire Smoke Over Europe: A First Example of the Aerosol Observing Capabilities of Aeolus Compared to Groundâ€Based Lidar. Geophysical Research Letters, 2021, 48, e2020GL092194.	4.0	34
42	The unexpected smoke layer in the High Arctic winter stratosphere during MOSAiC 2019â€“2020. Atmospheric Chemistry and Physics, 2021, 21, 15783-15808.	4.9	34
43	Optical properties of Central Asian aerosol relevant for spaceborne lidar applications and aerosol typing at 355 and 532â€‰nm. Atmospheric Chemistry and Physics, 2020, 20, 9265-9280.	4.9	33
44	Validation of Aeolus wind products above the Atlantic Ocean. Atmospheric Measurement Techniques, 2020, 13, 6007-6024.	3.1	33
45	Four-Dimensional Variational Data Analysis of Water Vapor Raman Lidar Data and Their Impact on Mesoscale Forecasts. Journal of Atmospheric and Oceanic Technology, 2008, 25, 1437-1453.	1.3	32
46	Optical and geometrical aerosol particle properties over the United Arab Emirates. Atmospheric Chemistry and Physics, 2020, 20, 8909-8922.	4.9	29
47	Application of the shipborne remote sensing supersite OCEANET for profiling of Arctic aerosols and clouds during <i>Polarstern</i> cruise PS106. Atmospheric Measurement Techniques, 2020, 13, 5335-5358.	3.1	28
48	Long-term profiling of aerosol light extinction, particle mass, cloud condensation nuclei, and ice-nucleating particle concentration over Dushanbe, Tajikistan, in Central Asia. Atmospheric Chemistry and Physics, 2020, 20, 4695-4711.	4.9	27
49	One year of Raman lidar observations of free-tropospheric aerosol layers over South Africa. Atmospheric Chemistry and Physics, 2015, 15, 5429-5442.	4.9	26
50	HETEAC: The Aerosol Classification Model for EarthCARE. EPJ Web of Conferences, 2016, 119, 01004.	0.3	26
51	Effect of Heat Wave Conditions on Aerosol Optical Properties Derived from Satellite and Ground-Based Remote Sensing over Poland. Remote Sensing, 2017, 9, 1199.	4.0	26
52	LACROS: the Leipzig Aerosol and Cloud Remote Observations System. Proceedings of SPIE, 2013, , .	0.8	25
53	Surface matters: limitations of CALIPSO V3 aerosol typing in coastal regions. Atmospheric Measurement Techniques, 2014, 7, 2061-2072.	3.1	25
54	The dual-field-of-view polarization lidar technique: a new concept in monitoring aerosol effects in liquid-water clouds â€“ case studies. Atmospheric Chemistry and Physics, 2020, 20, 15265-15284.	4.9	25

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55	First triple-wavelength lidar observations of depolarization and extinction-to-backscatter ratios of Saharan dust. Atmospheric Chemistry and Physics, 2022, 22, 355-369.	4.9	24
56	Microphysical investigation of the seeder and feeder region of an Alpine mixed-phase cloud. Atmospheric Chemistry and Physics, 2021, 21, 6681-6706.	4.9	22
57	Contrasting ice formation in Arctic clouds: surface-coupled vs. surface-decoupled clouds. Atmospheric Chemistry and Physics, 2021, 21, 10357-10374.	4.9	22
58	Calibration of Raman lidar water vapor profiles by means of AERONET photometer observations and GDAS meteorological data. Atmospheric Measurement Techniques, 2018, 11, 2735-2748.	3.1	21
59	Aerosol measurements with a shipborne Sunâ€“skyâ€“lunar photometer and collocated multiwavelength Raman polarization lidar over the Atlantic Ocean. Atmospheric Measurement Techniques, 2019, 12, 5685-5698.	3.1	21
60	Impact of aerosol layering, complex aerosol mixing, and cloud coverage on high-resolution MAIAC aerosol optical depth measurements: Fusion of lidar, AERONET, satellite, and ground-based measurements. Atmospheric Environment, 2021, 247, 118163.	4.1	21
61	Seasonal variability of heterogeneous ice formation in stratiform clouds over the Amazon Basin. Geophysical Research Letters, 2015, 42, 5587-5593.	4.0	19
62	Four-year long-path monitoring of ambient aerosol extinction at a central European urban site: dependence on relative humidity. Atmospheric Chemistry and Physics, 2016, 16, 1863-1876.	4.9	19
63	The dual-field-of-view polarization lidar technique: a new concept in monitoring aerosol effects in liquid-water clouds â€“ theoretical framework. Atmospheric Chemistry and Physics, 2020, 20, 15247-15263.	4.9	19
64	Measurement of the Linear Depolarization Ratio of Aged Dust at Three Wavelengths (355, 532 and 1064) Tj ETQq0 0 0 rgBT /Overlock 1	0.3	18
65	Detecting volcanic sulfur dioxide plumes in the Northern Hemisphere using the Brewer spectrophotometers, other networks, and satellite observations. Atmospheric Chemistry and Physics, 2017, 17, 551-574.	4.9	18
66	CALIPSO Aerosol-Typing Scheme Misclassified Stratospheric Fire Smoke: Case Study From the 2019 Siberian Wildfire Season. Frontiers in Environmental Science, 2021, 9, .	3.3	18
67	Hemispheric contrasts in ice formation in stratiform mixed-phase clouds: disentangling the role of aerosol and dynamics with ground-based remote sensing. Atmospheric Chemistry and Physics, 2021, 21, 17969-17994.	4.9	18
68	Australian wildfire smoke in the stratosphere: the decay phase in 2020/2021 and impact on ozone depletion. Atmospheric Chemistry and Physics, 2022, 22, 7417-7442.	4.9	17
69	EARLINET evaluation of the CATS Level 2 aerosol backscatter coefficient product. Atmospheric Chemistry and Physics, 2019, 19, 11743-11764.	4.9	16
70	Vertical aerosol distribution in the southern hemispheric midlatitudes as observed with lidar in Punta Arenas, Chile (53.2Â°â€‰S and 70.9Â°â€‰W), during ALPACA. Atmospheric Chemistry and Physics, 2019, 19, 6217-6233.	4.9	16
71	The Spectral Aerosol Extinction Monitoring System (SÇ¼MS): setup, observational products, and comparisons. Atmospheric Measurement Techniques, 2014, 7, 701-712.	3.1	14
72	peakTree: a framework for structure-preserving radar Doppler spectra analysis. Atmospheric Measurement Techniques, 2019, 12, 4813-4828.	3.1	14

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73	Advection of Biomass Burning Aerosols towards the Southern Hemispheric Mid-Latitude Station of Punta Arenas as Observed with Multiwavelength Polarization Raman Lidar. Remote Sensing, 2021, 13, 138.	4.0	14
74	PollyNET: a network of multiwavelength polarization Raman lidars. , 2013, , .		12
75	Doppler lidar studies of heat island effects on vertical mixing of aerosols during SAMUMâ€“2. Tellus, Series B: Chemical and Physical Meteorology, 2022, 63, 448.	1.6	11
76	Removing the Laser-Chirp Influence from Coherent Doppler Lidar Datasets by Two-Dimensional Deconvolution. Journal of Atmospheric and Oceanic Technology, 2012, 29, 1042-1051.	1.3	11
77	Influence of low-level blocking and turbulence on the microphysics of a mixed-phase cloud in an inner-Alpine valley. Atmospheric Chemistry and Physics, 2021, 21, 5151-5172.	4.9	11
78	Polarization lidar: an extended three-signal calibration approach. Atmospheric Measurement Techniques, 2019, 12, 1077-1093.	3.1	10
79	First Results from the German Cal/Val Activities for Aeolus. EPJ Web of Conferences, 2020, 237, 01008.	0.3	10
80	Experimental assessment of a micro-pulse lidar system in comparison with reference lidar measurements for aerosol optical properties retrieval. Atmospheric Measurement Techniques, 2021, 14, 5225-5239.	3.1	10
81	Impact of vertical air motions on ice formation rate in mixed-phase cloud layers. Npj Climate and Atmospheric Science, 2019, 2, .	6.8	7
82	Spatiotemporal variability of solar radiation introduced by clouds over Arctic sea ice. Atmospheric Measurement Techniques, 2020, 13, 1757-1775.	3.1	7
83	Comparison of Raman Lidar Observations of Water Vapor with COSMO-DE Forecasts during COPS 2007. Weather and Forecasting, 2011, 26, 1056-1066.	1.4	6
84	Aerosol absorption profiling from the synergy of lidar and sun-photometry: the ACTRIS-2 campaigns in Germany, Greece and Cyprus. EPJ Web of Conferences, 2018, 176, 08005.	0.3	5
85	Lidar Measurements of Canadian Forest Fire Smoke Episode Observed in July 2013 over Warsaw, Poland. EPJ Web of Conferences, 2016, 119, 18005.	0.3	4
86	Comparison between two lidar methods to retrieve microphysical properties of liquid-water clouds. EPJ Web of Conferences, 2018, 176, 01032.	0.3	4
87	Retrieval of microphysical properties of liquid water clouds from atmospheric lidar measurements: comparison of the Raman dual field of view and the depolarization techniques. , 2017, , .		4
88	Observation of Arabian and Saharan Dust in Cyprus with a New Generation of the Smart Raman Lidar Polly. EPJ Web of Conferences, 2016, 119, 27003.	0.3	3
89	Near-Range Receiver Unit of Next Generation PollyXTUsed with Koldeway Aerosol Raman Lidar in Arctic. EPJ Web of Conferences, 2016, 119, 06015.	0.3	3
90	Properties of arctic haze aerosol from lidar observations during iarea 2015 campaign on spitsbergen. EPJ Web of Conferences, 2018, 176, 05024.	0.3	3

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91	Wild fire aerosol optical properties measured by lidar at Haifa, Israel. EPJ Web of Conferences, 2018, 176, 05049.	0.3	3
92	Mineral dust in central asia: 18-month lidar measurements in tajikistan during the central Asian dust experiment (CADEX). EPJ Web of Conferences, 2018, 176, 04001.	0.3	3
93	Automatic Lidar Calibration and Processing Program for Multiwavelength Raman Polarization Lidar. EPJ Web of Conferences, 2020, 237, 08007.	0.3	3
94	Central Asian Dust Experiment (CADEX): Multiwavelength Polarization Raman Lidar Observations in Tajikistan. EPJ Web of Conferences, 2016, 119, 18006.	0.3	2
95	Application of the Garrlic Algorithm for the Characterization of Dust and Marine Particles Utilizing the Lidar-Sunphotometer Synergy. EPJ Web of Conferences, 2016, 119, 23021.	0.3	2
96	Aerosol layer heights above Tajikistan during the CADEX campaign. E3S Web of Conferences, 2019, 99, 02009.	0.5	2
97	Central Asian Dust EXperiment (CADEX): First Year Lidar Observations. , 2016, , .		2
98	Mineral dust in Central Asia: Combining lidar and other measurements during the Central Asian dust experiment (CADEX). EPJ Web of Conferences, 2018, 176, 04009.	0.3	1
99	PollyNET - an emerging network of automated raman-polarizarion lidars for continuous aerosolprofiling. EPJ Web of Conferences, 2018, 176, 09013.	0.3	1
100	Measurements of particle backscatter, extinction, and lidar ratio at 1064 nm with the rotational raman method in Polly-XT. EPJ Web of Conferences, 2018, 176, 01004.	0.3	1
101	Lidar/radar approach to quantify the dust impact on ice nucleation in mid and high level clouds. E3S Web of Conferences, 2019, 99, 04003.	0.5	1
102	Strategic positioning of the ERATOSTHENES Research Centre for atmospheric remote sensing research in the Eastern Mediterranean and Middle East region. , 2017, , .		1
103	Water vapour intercomparison effort in the frame of the Convective and Orographicallyâ€induced Precipitation Study. , 2009, , .		0
104	Study Case of Air-Mass Modification over Poland and Romania Observed by the Means of Multiwavelength Raman Depolarization Lidars. EPJ Web of Conferences, 2016, 119, 08008.	0.3	0
105	Free Tropospheric Aerosols Over South Africa. EPJ Web of Conferences, 2016, 119, 23015.	0.3	0
106	Earlinet validation of CATS L2 product. EPJ Web of Conferences, 2018, 176, 02005.	0.3	0
107	Triple-wavelength lidar observations of the linear depolarization ratio of dried marine particles. EPJ Web of Conferences, 2018, 176, 05014.	0.3	0
108	Lidar Ice nuclei estimates and how they relate with airborne in-situ measurements. EPJ Web of Conferences, 2018, 176, 05018.	0.3	0

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109	CADEX and beyond: Installation of a new PollyXT site in Dushanbe. E3S Web of Conferences, 2019, 99, 02010.	0.5	0
110	Profiling Aerosol Optical Properties at the Central Asian Site of Dushanbe, Tajikistan: Pure Dust Cases. EPJ Web of Conferences, 2020, 237, 02027.	0.3	0
111	Continuos Monitoring of Liquid Water Clouds and Aerosols with Dual-FOV Lidar Polarization Technique. EPJ Web of Conferences, 2020, 237, 07005.	0.3	0
112	Central Asian Dust EXperiment (CADEX): Long-term Aerosol Profiling in Tajikistan. , 2017, , .		0
113	Wildfire Smoke in the Stratosphere Over Europeâ€“First Measurements of Depolarization and Lidar Ratios at 355, 532, and 1064 nm. EPJ Web of Conferences, 2020, 237, 02036.	0.3	0