Bastiaan van Diedenhoven

List of Publications by Year
in descending order

59 papers	1,982 citations	236833 25 h-index	265120 42 g-index
80 all docs	80 docs citations	80 times ranked	1857 citing authors

#	Article	IF	Citations
1	Above-aircraft cirrus cloud and aerosol optical depth from hyperspectral irradiances measured by a total-diffuse radiometer. Atmospheric Measurement Techniques, 2022, 15, 1373-1394.	1.2	5
2	Analysis of Scattering Angle Sampling by Multi-Angle Imaging Polarimeters for Different Orbit Geometries. Frontiers in Remote Sensing, 2022, 3, .	1.3	1
3	Polarimeter + Lidarâ€“Derived Aerosol Particle Number Concentration. Frontiers in Remote Sensing, 2022, 3, .	1.3	5
4	An evaluation of the liquid cloud droplet effective radius derived from MODIS, airborne remote sensing, and in situ measurements from CAMP²Ex. Atmospheric Chemistry and Physics, 2022, 22, 8259-8285.	1.9	7
5	An Overview of Atmospheric Features Over the Western North Atlantic Ocean and North American East Coast â€“ Part 1: Analysis of Aerosols, Gases, and Wet Deposition Chemistry. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD032592.	1.2	18
6	Joint cloud water path and rainwater path retrievals from airborne ORACLES observations. Atmospheric Chemistry and Physics, 2021, 21, 5513-5532.	1.9	4
7	Inference of Precipitation in Warm Stratiform Clouds Using Remotely Sensed Observations of the Cloud Top Droplet Size Distribution. Geophysical Research Letters, 2021, 48, e2021GL092547.	1.5	5
8	Simultaneous Aerosol and Ocean Properties From the PolCube CubeSat Polarimeter. Frontiers in Remote Sensing, 2021, 2, .	1.3	5
9	Variation of Ice Microphysical Properties With Temperature and Humidity at Tops of Convective Clouds. Geophysical Research Letters, 2021, 48, e2021GL093673.	1.5	4
10	Application of Radon Transform to Multi-Angle Measurements Made by the Research Scanning Polarimeter: A New Approach to Cloud Tomography. Part I: Theory and Tests on Simulated Data. Frontiers in Remote Sensing, 2021, 2, .	1.3	3
11	Confronting the Challenge of Modeling Cloud and Precipitation Microphysics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001689.	1.3	154
12	Global Statistics of Ice Microphysical and Optical Properties at Tops of Optically Thick Ice Clouds. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031811.	1.2	16
13	Observations of Aerosolâ€Cloud Interactions During the North Atlantic Aerosol and Marine Ecosystem Study. Geophysical Research Letters, 2020, 47, e2019GL085851.	1.5	6
14	Vertical profiles of droplet size distributions derived from cloud-side observations by the research scanning polarimeter: Tests on simulated data. Atmospheric Research, 2020, 239, 104924.	1.8	10
15	A Flexible Parameterization for Shortwave and Longwave Optical Properties of Ice Crystals and Derived Bulk Optical Properties for Climate Models. Journals of the Atmospheric Sciences, 2020, 77, 1245-1260.	0.6	6
16	Constraining the Twomey effect from satellite observations: issues and perspectives. Atmospheric Chemistry and Physics, 2020, 20, 15079-15099.	1.9	49
17	Low-level liquid cloud properties during ORACLES retrieved using airborne polarimetric measurements and a neural network algorithm. Atmospheric Measurement Techniques, 2020, 13, 3447-3470.	1.2	5
18	The Aerosol Characterization from Polarimeter and Lidar (ACEPOL) airborne field campaign. Earth System Science Data, 2020, 12, 2183-2208.	3.7	10

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19	A Classification of Ice Crystal Habits Using Combined Lidar and Scanning Polarimeter Observations during the SEAC4RS Campaign. Journal of Atmospheric and Oceanic Technology, 2020, 37, 2185-2196.	0.5	2
20	Intercomparison of biomass burning aerosol optical properties from in situ and remote-sensing instruments in ORACLES-2016. Atmospheric Chemistry and Physics, 2019, 19, 9181-9208.	1.9	69
21	Retrieval of liquid water cloud properties from POLDER-3 measurements using a neural network ensemble approach. Atmospheric Measurement Techniques, 2019, 12, 1697-1716.	1.2	11
22	Polarimetric retrievals of cloud droplet number concentrations. Remote Sensing of Environment, 2019, 228, 227-240.	4.6	17
23	Intercomparison of airborne multi-angle polarimeter observations from the Polarimeter Definition Experiment. Applied Optics, 2019, 58, 650.	0.9	28
24	In-flight validation of SPEX airborne spectro-polarimeter onboard NASA's research aircraft ER-2. , 2019, , .		6
25	Remote Sensing of Crystal Shapes in Ice Clouds. Springer Series in Light Scattering, 2018, , 197-250.	1.8	13
26	Remote Sensing of Droplet Number Concentration in Warm Clouds: A Review of the Current State of Knowledge and Perspectives. Reviews of Geophysics, 2018, 56, 409-453.	9.0	185
27	Combined neural network/Phillipsâ€“Tikhonov approach to aerosol retrievals over land from the NASA Research Scanning Polarimeter. Atmospheric Measurement Techniques, 2017, 10, 4235-4252.	1.2	28
28	Remote sensing of multiple cloud layer heights using multi-angular measurements. Atmospheric Measurement Techniques, 2017, 10, 2361-2375.	1.2	21
29	Passive remote sensing of aerosol layer height using nearâ€UV multiangle polarization measurements. Geophysical Research Letters, 2016, 43, 8783-8790.	1.5	50
30	Polarized view of supercooled liquid water clouds. Remote Sensing of Environment, 2016, 181, 96-110.	4.6	23
31	Derivation of physical and optical properties of mid-latitude cirrus ice crystals for a size-resolved cloud microphysics model. Atmospheric Chemistry and Physics, 2016, 16, 7251-7283.	1.9	14
32	Vertical variation of ice particle size in convective cloud tops. Geophysical Research Letters, 2016, 43, 4586-4593.	1.5	28
33	On Averaging Aspect Ratios and Distortion Parameters over Ice Crystal Population Ensembles for Estimating Effective Scattering Asymmetry Parameters. Journals of the Atmospheric Sciences, 2016, 73, 775-787.	0.6	10
34	The effect of roughness model on scattering properties of ice crystals. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 178, 134-141.	1.1	11
35	Photopolarimetric retrievals of snow properties. Cryosphere, 2015, 9, 1933-1942.	1.5	20
36	Aerosol retrieval from multiangle, multispectral photopolarimetric measurements: importance of spectral range and angular resolution. Atmospheric Measurement Techniques, 2015, 8, 2625-2638.	1.2	62

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37	Liquid water cloud properties during the Polarimeter Definition Experiment (PODEX). Remote Sensing of Environment, 2015, 169, 20-36.	4.6	27
38	Cloud thermodynamic phase detection with polarimetrically sensitive passive sky radiometers. Atmospheric Measurement Techniques, 2015, 8, 1537-1554.	1.2	26
39	A Flexible Parameterization for Shortwave Optical Properties of Ice Crystals*. Journals of the Atmospheric Sciences, 2014, 71, 1763-1782.	0.6	42
40	The prevalence of the 22Â° halo in cirrus clouds. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 475-479.	1.1	16
41	Assessment of the accuracy of the conventional ray-tracing technique: Implications in remote sensing and radiative transfer involving ice clouds. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 158-174.	1.1	29
42	Variation of ice crystal size, shape, and asymmetry parameter in tops of tropical deep convective clouds. Journal of Geophysical Research D: Atmospheres, 2014, 119, 11,809-11,825.	1.2	40
43	Remote sensing of ice crystal asymmetry parameter using multi-directional polarization measurements â€“ Part 2: Application to the Research Scanning Polarimeter. Atmospheric Chemistry and Physics, 2013, 13, 3185-3203.	1.9	53
44	Evaluation of Hydrometeor Phase and Ice Properties in Cloud-Resolving Model Simulations of Tropical Deep Convection Using Radiance and Polarization Measurements. Journals of the Atmospheric Sciences, 2012, 69, 3290-3314.	0.6	39
45	Remote sensing of ice crystal asymmetry parameter using multi-directional polarization measurements â€“ Part 1: Methodology and evaluation with simulated measurements. Atmospheric Measurement Techniques, 2012, 5, 2361-2374.	1.2	65
46	A FIRE-ACE/SHEBA Case Study of Mixed-Phase Arctic Boundary Layer Clouds: Entrainment Rate Limitations on Rapid Primary Ice Nucleation Processes. Journals of the Atmospheric Sciences, 2012, 69, 365-389.	0.6	77
47	Analysis of fine-mode aerosol retrieval capabilities by different passive remote sensing instrument designs. Optics Express, 2012, 20, 21457.	1.7	96
48	Polarimetric retrievals of surface and cirrus clouds properties in the region affected by the Deepwater Horizon oil spill. Remote Sensing of Environment, 2012, 121, 389-403.	4.6	41
49	Accuracy assessments of cloud droplet size retrievals from polarized reflectance measurements by the research scanning polarimeter. Remote Sensing of Environment, 2012, 125, 92-111.	4.6	90
50	Toward ice formation closure in Arctic mixed-phase boundary layer clouds during ISDAC. Journal of Geophysical Research, 2011, 116, .	3.3	65
51	Influence of Humidified Aerosol on Lidar Depolarization Measurements below Ice-Precipitating Arctic Stratus. Journal of Applied Meteorology and Climatology, 2011, 50, 2184-2192.	0.6	6
52	An evaluation of ice formation in largeâ€eddy simulations of supercooled Arctic stratocumulus using groundâ€based lidar and cloud radar. Journal of Geophysical Research, 2009, 114, .	3.3	15
53	Retrieval of cloud properties from nearâ€ultraviolet, visible, and nearâ€infrared satelliteâ€based Earth reflectivity spectra: A comparative study. Journal of Geophysical Research, 2008, 113, .	3.3	9
54	Effects of clouds on ozone profile retrievals from satellite measurements in the ultraviolet. Journal of Geophysical Research, 2008, 113, .	3.3	1

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55	Retrieval of cloud parameters from satelliteâ€based reflectance measurements in the ultraviolet and the oxygen Aâ€band. Journal of Geophysical Research, 2007, 112, .	3.3	34
56	Efficient vector radiative transfer calculations in vertically inhomogeneous cloudy atmospheres. Applied Optics, 2006, 45, 5993.	2.1	10
57	Surface pressure retrieval from SCIAMACHY measurements in the O₂ A Band: validation of the measurements and sensitivity on aerosols. Atmospheric Chemistry and Physics, 2005, 5, 2109-2120.	1.9	51
58	The Profiles of the 3â€“12 Micron Polycyclic Aromatic Hydrocarbon Features. Astrophysical Journal, 2004, 611, 928-939.	1.6	224
59	Simultaneous Retrieval of Trace Gases, Aerosols, and Cirrus Using RemoTAPâ€”The Global Orbit Ensemble Study for the CO2M Mission. Frontiers in Remote Sensing, 0, 3, .	1.3	7