

Thomas Eck

List of Publications by Year in descending order

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57
papers

16,290
citations

57719

44
h-index

161767

54
g-index

66
all docs

66
docs citations

66
times ranked

7888
citing authors

#	ARTICLE	IF	CITATIONS
1	The MODIS Aerosol Algorithm, Products, and Validation. <i>Journals of the Atmospheric Sciences</i> , 2005, 62, 947-973.	0.6	2,866
2	Wavelength dependence of the optical depth of biomass burning, urban, and desert dust aerosols. <i>Journal of Geophysical Research</i> , 1999, 104, 31333-31349.	3.3	1,737
3	An emerging ground-based aerosol climatology: Aerosol optical depth from AERONET. <i>Journal of Geophysical Research</i> , 2001, 106, 12067-12097.	3.3	1,737
4	Accuracy assessments of aerosol optical properties retrieved from Aerosol Robotic Network (AERONET) Sun and sky radiance measurements. <i>Journal of Geophysical Research</i> , 2000, 105, 9791-9806.	3.3	1,532
5	A review of biomass burning emissions part II: intensive physical properties of biomass burning particles. <i>Atmospheric Chemistry and Physics</i> , 2005, 5, 799-825.	1.9	1,111
6	Global evaluation of the Collection 5 MODIS dark-target aerosol products over land. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 10399-10420.	1.9	1,060
7	Spectral discrimination of coarse and fine mode optical depth. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	541
8	A review of biomass burning emissions part III: intensive optical properties of biomass burning particles. <i>Atmospheric Chemistry and Physics</i> , 2005, 5, 827-849.	1.9	484
9	Columnar aerosol optical properties at AERONET sites in central eastern Asia and aerosol transport to the tropical mid-Pacific. <i>Journal of Geophysical Research</i> , 2005, 110, n/a-n/a.	3.3	377
10	Climatological aspects of the optical properties of fine/coarse mode aerosol mixtures. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	325
11	An analysis of AERONET aerosol absorption properties and classifications representative of aerosol source regions. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	311
12	Classification of aerosol properties derived from AERONET direct sun data. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 453-458.	1.9	215
13	Light absorption by pollution, dust, and biomass burning aerosols: a global model study and evaluation with AERONET measurements. <i>Annales Geophysicae</i> , 2009, 27, 3439-3464.	0.6	214
14	Characterization of the optical properties of biomass burning aerosols in Zambia during the 1997 ZIBBEE field campaign. <i>Journal of Geophysical Research</i> , 2001, 106, 3425-3448.	3.3	207
15	Bimodal size distribution influences on the variation of Angstrom derivatives in spectral and optical depth space. <i>Journal of Geophysical Research</i> , 2001, 106, 9787-9806.	3.3	205
16	Detection of biomass burning smoke from TOMS measurements. <i>Geophysical Research Letters</i> , 1996, 23, 745-748.	1.5	195
17	High aerosol optical depth biomass burning events: A comparison of optical properties for different source regions. <i>Geophysical Research Letters</i> , 2003, 30, .	1.5	179
18	Aeronet's Version 2.0 quality assurance criteria. , 2006, 6408, 134.		179

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19	Variability of biomass burning aerosol optical characteristics in southern Africa during the SAFARI 2000 dry season campaign and a comparison of single scattering albedo estimates from radiometric measurements. <i>Journal of Geophysical Research</i> , 2003, 108, n/a-n/a.	3.3	158
20	Maritime aerosol network as a component of AERONET – first results and comparison with global aerosol models and satellite retrievals. <i>Atmospheric Measurement Techniques</i> , 2011, 4, 583-597.	1.2	152
21	The lognormal distribution as a reference for reporting aerosol optical depth statistics; Empirical tests using multi-year, multi-site AERONET Sunphotometer data. <i>Geophysical Research Letters</i> , 2000, 27, 3333-3336.	1.5	141
22	Comparison of Moderate Resolution Imaging Spectroradiometer (MODIS) and Aerosol Robotic Network (AERONET) remote-sensing retrievals of aerosol fine mode fraction over ocean. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	123
23	Optical properties of boreal region biomass burning aerosols in central Alaska and seasonal variation of aerosol optical depth at an Arctic coastal site. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	123
24	Spatial and temporal variability of column-integrated aerosol optical properties in the southern Arabian Gulf and United Arab Emirates in summer. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	119
25	Maritime component in aerosol optical models derived from Aerosol Robotic Network data. <i>Journal of Geophysical Research</i> , 2003, 108, AAC 14-1.	3.3	115
26	Satellite estimation of spectral UVB irradiance using TOMS derived total ozone and UV reflectivity. <i>Geophysical Research Letters</i> , 1995, 22, 611-614.	1.5	114
27	Dust optical properties over North Africa and Arabian Peninsula derived from the AERONET dataset. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 10733-10741.	1.9	112
28	Validation of AERONET estimates of atmospheric solar fluxes and aerosol radiative forcing by ground-based broadband measurements. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	100
29	Fog- and cloud-induced aerosol modification observed by the Aerosol Robotic Network (AERONET). <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	99
30	A seasonal trend of single scattering albedo in southern African biomass-burning particles: Implications for satellite products and estimates of emissions for the world's largest biomass-burning source. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 6414-6432.	1.2	99
31	A critical examination of spatial biases between MODIS and MISR aerosol products – application for potential AERONET deployment. <i>Atmospheric Measurement Techniques</i> , 2011, 4, 2823-2836.	1.2	93
32	Effect of dry-season biomass burning on Amazon basin aerosol concentrations and optical properties, 1992-1994. <i>Journal of Geophysical Research</i> , 1996, 101, 19465-19481.	3.3	91
33	The albedo of a tropical evergreen forest. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1980, 106, 551-558.	1.0	85
34	Characterization of the optical properties of atmospheric aerosols in Amazonia from long-term AERONET monitoring (1993–1995 and 1999–2006). <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	80
35	Relationship between column aerosol optical thickness and in situ ground based dust concentrations over Barbados. <i>Geophysical Research Letters</i> , 2000, 27, 1643-1646.	1.5	77
36	Development towards a global operational aerosol consensus: basic climatological characteristics of the International Cooperative for Aerosol Prediction Multi-Model Ensemble (ICAP-MME). <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 335-362.	1.9	76

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37	AERONET-based models of smoke-dominated aerosol near source regions and transported over oceans, and implications for satellite retrievals of aerosol optical depth. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 11493-11523.	1.9	75
38	New approach to monitor transboundary particulate pollution over Northeast Asia. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 659-674.	1.9	66
39	A synthesis of single scattering albedo of biomass burning aerosol over southern Africa during SAFARI 2000. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	64
40	Aerosol Radiative Impact on Spectral Solar Flux at the Surface, Derived from Principal-Plane Sky Measurements. <i>Journals of the Atmospheric Sciences</i> , 2002, 59, 635-646.	0.6	60
41	Remote sensing of soot carbon α Part 2: Understanding the absorption λ^{-1} exponent. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 1587-1602.	1.9	60
42	Observations of rapid aerosol optical depth enhancements in the vicinity of polluted cumulus clouds. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 11633-11656.	1.9	58
43	Effect of smoke and clouds on the transmissivity of photosynthetically active radiation inside the canopy. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 1645-1656.	1.9	54
44	Latitudinal variation of aerosol properties from Indo-Gangetic Plain to central Himalayan foothills during TIGERZ campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 4750-4769.	1.2	52
45	Observations of the Interaction and Transport of Fine Mode Aerosols With Cloud and/or Fog in Northeast Asia From Aerosol Robotic Network and Satellite Remote Sensing. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 5560-5587.	1.2	49
46	AERONET Remotely Sensed Measurements and Retrievals of Biomass Burning Aerosol Optical Properties During the 2015 Indonesian Burning Season. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 4722-4740.	1.2	40
47	Intercomparison of aerosol single-scattering albedo derived from AERONET surface radiometers and LARGE in situ aircraft profiles during the 2011 DRAGON-MD and DISCOVER-AQ experiments. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 7439-7452.	1.2	37
48	Influence of observed diurnal cycles of aerosol optical depth on aerosol direct radiative effect. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 7895-7901.	1.9	32
49	Pan-Arctic sunphotometry during the ARCTAS campaign of April 2008. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	31
50	Aerosol optical properties derived from the DRAGON-NE Asia campaign, and implications for a single-channel algorithm to retrieve aerosol optical depth in spring from Meteorological Imager (MI) on-board the Communication, Ocean, and Meteorological Satellite (COMS). <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 1789-1808.	1.9	29
51	Robust optical features of fine mode size distributions: Application to the Quebec smoke event of 2002. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	28
52	Verification and application of the extended spectral deconvolution algorithm (SDA+) methodology to estimate aerosol fine and coarse mode extinction coefficients in the marine boundary layer. <i>Atmospheric Measurement Techniques</i> , 2014, 7, 3399-3412.	1.2	25
53	Coarse mode optical information retrievable using ultraviolet to short-wave infrared Sun photometry: Application to United Arab Emirates Unified Aerosol Experiment data. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	23
54	Observation-Based Study on Aerosol Optical Depth and Particle Size in Partly Cloudy Regions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 10013-10024.	1.2	11

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55	A miniature scanning sun photometer for vertical profiles and mobile platforms. Aerosol Science and Technology, 2016, 50, 11-16.	1.5	5
56	Climatological aspects of the optical properties of fine/coarse mode aerosol mixtures. , 2010, .		1
57	Current and Future Perspectives of Aerosol Research at NASA Goddard Space Flight Center. Bulletin of the American Meteorological Society, 2014, 95, ES203-ES207.	1.7	0