Thomas Eck

List of Publications by Year in Descending Order

65 papers	13,569 citations	43 h-index	66 g-index
66 ext. papers	14,907 ext. citations	5.2 avg, IF	5.59 L-index

#	Paper	IF	Citations
65	AERONET Remotely Sensed Measurements and Retrievals of Biomass Burning Aerosol Optical Properties During the 2015 Indonesian Burning Season. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 4722-4740	4.4	21
64	Observations of the Interaction and Transport of Fine Mode Aerosols with Cloud and/or Fog in Northeast Asia from Aerosol Robotic Network (AERONET) and Satellite Remote Sensing. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 5560-5587	4.4	33
63	Observation-based study on aerosol optical depth and particle size in partly cloudy regions. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 10013-10024	4.4	8
62	Remote sensing of soot carbon Part 2: Understanding the absorption ngstrm exponent. *Atmospheric Chemistry and Physics*, **2016**, 16, 1587-1602	6.8	52
61	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). *Atmospheric Chemistry and Physics*, **2016**, 16, 1789-1809	6.8	25
60	A miniature scanning sun photometer for vertical profiles and mobile platforms. *Aerosol Science and Technology*, **2016**, 50, 11-16	3.4	4
59	Development towards a global operational aerosol consensus: basic climatological characteristics of the International Cooperative for Aerosol Prediction Multi-Model Ensemble (ICAP-MME). *Atmospheric Chemistry and Physics*, **2015**, 15, 335-362	6.8	57
58	Latitudinal variation of aerosol properties from Indo-Gangetic Plain to central Himalayan foothills during TIGERZ campaign. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 4750-4769	4.4	43
57	AERONET-based models of smoke-dominated aerosol near source regions and transported over oceans, and implications for satellite retrievals of aerosol optical depth. *Atmospheric Chemistry and Physics*, **2014**, 14, 11493-11523	6.8	63
56	Observations of rapid aerosol optical depth enhancements in the vicinity of polluted cumulus clouds. *Atmospheric Chemistry and Physics*, **2014**, 14, 11633-11656	6.8	46
55	New approach to monitor transboundary particulate pollution over Northeast Asia. *Atmospheric Chemistry and Physics*, **2014**, 14, 659-674	6.8	53
54	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. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 7439-7452	4.4	30
53	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. *Atmospheric Measurement Techniques*, **2014**, 7, 3399-3412	4	20
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 **2014**,		1
51	Current and Future Perspectives of Aerosol Research at NASA Goddard Space Flight Center. *Bulletin of the American Meteorological Society*, **2014**, 95, ES203-ES207	6.1	
50	Influence of observed diurnal cycles of aerosol optical depth on aerosol direct radiative effect. *Atmospheric Chemistry and Physics*, **2013**, 13, 7895-7901	6.8	24
49	A seasonal trend of single scattering albedo in southern African biomass-burning particles: Implications for satellite products and estimates of emissions for the worlds largest biomass-burning source. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 6414-6432	4.4	79

48	Fog- and cloud-induced aerosol modification observed by the Aerosol Robotic Network (AERONET). *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		70
47	An analysis of AERONET aerosol absorption properties and classifications representative of aerosol source regions. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		240
46	Dust optical properties over North Africa and Arabian Peninsula derived from the AERONET dataset. *Atmospheric Chemistry and Physics*, **2011**, 11, 10733-10741	6.8	97
45	Where do we need additional in situ aerosol and sun photometer data?: a critical examination of spatial biases between MODIS and MISR aerosol products **2011**,		3
44	A critical examination of spatial biases between MODIS and MISR aerosol products □application for potential AERONET deployment. *Atmospheric Measurement Techniques*, **2011**, 4, 2823-2836	4	80
43	Maritime aerosol network as a component of AERONET □first results and comparison with global aerosol models and satellite retrievals. *Atmospheric Measurement Techniques*, **2011**, 4, 583-597	4	121
42	Global evaluation of the Collection 5 MODIS dark-target aerosol products over land. *Atmospheric Chemistry and Physics*, **2010**, 10, 10399-10420	6.8	894
41	Pan-Arctic sunphotometry during the ARCTAS-A campaign of April 2008. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	26
40	Climatological aspects of the optical properties of fine/coarse mode aerosol mixtures. *Journal of Geophysical Research*, **2010**, 115,		276
39	Climatological aspects of the optical properties of fine/coarse mode aerosol mixtures **2010**, 115,		1
38	Light absorption by pollution, dust, and biomass burning aerosols: a global model study and evaluation with AERONET measurements. *Annales Geophysicae*, **2009**, 27, 3439-3464	2	192
37	Optical properties of boreal region biomass burning aerosols in central Alaska and seasonal variation of aerosol optical depth at an Arctic coastal site. *Journal of Geophysical Research*, **2009**, 114,		105
36	Spatial and temporal variability of column-integrated aerosol optical properties in the southern Arabian Gulf and United Arab Emirates in summer. *Journal of Geophysical Research*, **2008**, 113,		108
35	Coarse mode optical information retrievable using ultraviolet to short-wave infrared Sun photometry: Application to United Arab Emirates Unified Aerosol Experiment data. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		20
34	Characterization of the optical properties of atmospheric aerosols in Amaz□ia from long-term AERONET monitoring (1993□1995 and 1999□2006). *Journal of Geophysical Research*, **2008**, 113,		71
33	Validation of AERONET estimates of atmospheric solar fluxes and aerosol radiative forcing by ground-based broadband measurements. *Journal of Geophysical Research*, **2008**, 113,		80
32	A synthesis of single scattering albedo of biomass burning aerosol over southern Africa during SAFARI 2000. *Geophysical Research Letters*, **2007**, 34,	4.9	61
31	Classification of aerosol properties derived from AERONET direct sun data. *Atmospheric Chemistry and Physics*, **2007**, 7, 453-458	6.8	185

30	Effect of smoke and clouds on the transmissivity of photosynthetically active radiation inside the canopy. *Atmospheric Chemistry and Physics*, **2006**, 6, 1645-1656	6.8	41
29	AeronetS Version 2.0 quality assurance criteria **2006**, 6408, 134		151
28	Robust optical features of fine mode size distributions: Application to the Qubec smoke event of 2002. *Journal of Geophysical Research*, **2005**, 110,		23
27	Columnar aerosol optical properties at AERONET sites in central eastern Asia and aerosol transport to the tropical mid-Pacific. *Journal of Geophysical Research*, **2005**, 110, n/a-n/a		323
26	Comparison of Moderate Resolution Imaging Spectroradiometer (MODIS) and Aerosol Robotic Network (AERONET) remote-sensing retrievals of aerosol fine mode fraction over ocean. *Journal of Geophysical Research*, **2005**, 110,		103
25	A review of biomass burning emissions part II: intensive physical properties of biomass burning particles. *Atmospheric Chemistry and Physics*, **2005**, 5, 799-825	6.8	935
24	A review of biomass burning emissions part III: intensive optical properties of biomass burning particles. *Atmospheric Chemistry and Physics*, **2005**, 5, 827-849	6.8	378
23	The MODIS Aerosol Algorithm, Products, and Validation. *Journals of the Atmospheric Sciences*, **2005**, 62, 947-973	2.1	2405
22	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. *Journal of Geophysical Research*, **2003**, 108, n/a-n/a		124
21	Maritime component in aerosol optical models derived from Aerosol Robotic Network data. *Journal of Geophysical Research*, **2003**, 108, AAC 14-1		95
20	Spectral discrimination of coarse and fine mode optical depth. *Journal of Geophysical Research*, **2003**, 108,		446
19	High aerosol optical depth biomass burning events: A comparison of optical properties for different source regions. *Geophysical Research Letters*, **2003**, 30,	4.9	146
18	Aerosol Radiative Impact on Spectral Solar Flux at the Surface, Derived from Principal-Plane Sky Measurements. *Journals of the Atmospheric Sciences*, **2002**, 59, 635-646	2.1	49
17	An emerging ground-based aerosol climatology: Aerosol optical depth from AERONET. *Journal of Geophysical Research*, **2001**, 106, 12067-12097		1459
16	Bimodal size distribution influences on the variation of Angstrom derivatives in spectral and optical depth space. *Journal of Geophysical Research*, **2001**, 106, 9787-9806		175
15	Characterization of the optical properties of biomass burning aerosols in Zambia during the 1997 ZIBBEE field campaign. *Journal of Geophysical Research*, **2001**, 106, 3425-3448		180
14	Accuracy assessments of aerosol optical properties retrieved from Aerosol Robotic Network (AERONET) Sun and sky radiance measurements. *Journal of Geophysical Research*, **2000**, 105, 9791-9806		1272
13	Relationship between column aerosol optical thickness and in situ ground based dust concentrations over Barbados. *Geophysical Research Letters*, **2000**, 27, 1643-1646	4.9	63

12	The lognormal distribution as a reference for reporting aerosol optical depth statistics; Empirical tests using multi-year, multi-site AERONET Sunphotometer data. *Geophysical Research Letters*, **2000**, 27, 3333-3336	4.9	117
11	Wavelength dependence of the optical depth of biomass burning, urban, and desert dust aerosols. *Journal of Geophysical Research*, **1999**, 104, 31333-31349		1437
10	Detection of biomass burning smoke from TOMS measurements. *Geophysical Research Letters*, **1996**, 23, 745-748	4.9	164
9	Effect of dry-season biomass burning on Amazon basin aerosol concentrations and optical properties, 1992–1994. *Journal of Geophysical Research*, **1996**, 101, 19465-19481		75
8	Satellite estimation of spectral UVB irradiance using TOMS derived total ozone and UV reflectivity. *Geophysical Research Letters*, **1995**, 22, 611-614	4.9	98
7	The albedo of a tropical evergreen forest. *Quarterly Journal of the Royal Meteorological Society*, **1980**, 106, 551-558	6.4	70
6	Global evaluation of the Collection 5 MODIS dark-target aerosol products over land		33
5	Dust optical properties over North Africa and Arabian Peninsula derived from the AERONET dataset		7
4	Influence of observed diurnal cycles of aerosol optical depth on aerosol direct radiative effect		3
3	AERONET-based microphysical and optical properties of smoke-dominated aerosol near source regions and transported over oceans, and implications for satellite retrievals of aerosol optical depth		1
2	Development towards a global operational aerosol consensus: basic climatological characteristics of the International Cooperative for Aerosol Prediction Multi-Model Ensemble (ICAP-MME)		3
1	Remote sensing of soot carbon – Part 2: Understanding the absorption Angstrom exponent		4