

# Merritt Deeter

## List of Publications by Citations

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104  
papers

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38  
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66  
g-index

115  
ext. papers

5,456  
ext. citations

4.5  
avg, IF

5  
L-index

#	Paper	IF	Citations
104	Operational carbon monoxide retrieval algorithm and selected results for the MOPITT instrument. <i>Journal of Geophysical Research</i> , <b>2003</b> , 108,		317
103	21st Century drought-related fires counteract the decline of Amazon deforestation carbon emissions. <i>Nature Communications</i> , <b>2018</b> , 9, 536	17.4	304
102	Satellite-observed pollution from Southern Hemisphere biomass burning. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111,		215
101	Validation of Measurements of Pollution in the Troposphere (MOPITT) CO retrievals with aircraft in situ profiles. <i>Journal of Geophysical Research</i> , <b>2004</b> , 109, n/a-n/a		189
100	Observations of carbon monoxide and aerosols from the Terra satellite: Northern Hemisphere variability. <i>Journal of Geophysical Research</i> , <b>2004</b> , 109,		177
99	Decadal record of satellite carbon monoxide observations. <i>Atmospheric Chemistry and Physics</i> , <b>2013</b> , 13, 837-850	6.8	172
98	Asian outflow and trans-Pacific transport of carbon monoxide and ozone pollution: An integrated satellite, aircraft, and model perspective. <i>Journal of Geophysical Research</i> , <b>2003</b> , 108, n/a-n/a		168
97	Vertical resolution and information content of CO profiles retrieved by MOPITT. <i>Geophysical Research Letters</i> , <b>2004</b> , 31,	4.9	125
96	Description and evaluation of tropospheric chemistry and aerosols in the Community Earth System Model (CESM1.2). <i>Geoscientific Model Development</i> , <b>2015</b> , 8, 1395-1426	6.3	119
95	The MOPITT version 4 CO product: Algorithm enhancements, validation, and long-term stability. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115,		115
94	Observations of near-surface carbon monoxide from space using MOPITT multispectral retrievals. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115,		109
93	Sensitivity of MOPITT observations to carbon monoxide in the lower troposphere. <i>Journal of Geophysical Research</i> , <b>2007</b> , 112,		105
92	Validation of MOPITT Version 5 thermal-infrared, near-infrared, and multispectral carbon monoxide profile retrievals for 2000-2011. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2013</b> , 118, 6710-6725	4.4	103
91	Measurements of Pollution In The Troposphere (MOPITT) validation through 2006. <i>Atmospheric Chemistry and Physics</i> , <b>2009</b> , 9, 1795-1803	6.8	102
90	Tropospheric ozone over the tropical Atlantic: A satellite perspective. <i>Journal of Geophysical Research</i> , <b>2003</b> , 108,		98
89	Temperature dependence of the Verdet constant in several diamagnetic glasses. <i>Applied Optics</i> , <b>1991</b> , 30, 1176-8	1.7	86
88	Evidence of vertical transport of carbon monoxide from Measurements of Pollution in the Troposphere (MOPITT). <i>Geophysical Research Letters</i> , <b>2004</b> , 31,	4.9	79

87	Modeling of Submillimeter Passive Remote Sensing of Cirrus Clouds. <i>Journal of Applied Meteorology and Climatology</i> , <b>1998</b> , 37, 184-205		78
86	Ten years of CO emissions as seen from Measurements of Pollution in the Troposphere (MOPITT). <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		77
85	The MOPITT Version 6 product: algorithm enhancements and validation. <i>Atmospheric Measurement Techniques</i> , <b>2014</b> , 7, 3623-3632	4	76
84	The influence of boreal biomass burning emissions on the distribution of tropospheric ozone over North America and the North Atlantic during 2010. <i>Atmospheric Chemistry and Physics</i> , <b>2012</b> , 12, 2077-2098	6.8	76
83	A 15-year record of CO emissions constrained by MOPITT CO observations. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 4565-4583	6.8	69
82	Rapid decline in carbon monoxide emissions and export from East Asia between years 2005 and 2016. <i>Environmental Research Letters</i> , <b>2018</b> , 13, 044007	6.2	60
81	Carbon monoxide pollution from cities and urban areas observed by the Terra/MOPITT mission. <i>Geophysical Research Letters</i> , <b>2008</b> , 35,	4.9	60
80	. <i>Journal of Lightwave Technology</i> , <b>1990</b> , 8, 1838-1842	4	58
79	MOPITT multispectral CO retrievals: Origins and effects of geophysical radiance errors. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		53
78	A climate-scale satellite record for carbon monoxide: the MOPITT Version 7 product. <i>Atmospheric Measurement Techniques</i> , <b>2017</b> , 10, 2533-2555	4	52
77	Evaluation of MOPITT retrievals of lower-tropospheric carbon monoxide over the United States. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		51
76	Global atmospheric carbon monoxide budget 2000-2017 inferred from multi-species atmospheric inversions. <i>Earth System Science Data</i> , <b>2019</b> , 11, 1411-1436	10.5	51
75	Impact of model errors in convective transport on CO source estimates inferred from MOPITT CO retrievals. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2013</b> , 118, 2073-2083	4.4	50
74	A new satellite retrieval method for precipitable water vapor over land and ocean. <i>Geophysical Research Letters</i> , <b>2007</b> , 34,	4.9	50
73	Relative changes in CO emissions over megacities based on observations from space. <i>Geophysical Research Letters</i> , <b>2013</b> , 40, 3766-3771	4.9	47
72	CO retrievals based on MOPITT near-infrared observations. <i>Journal of Geophysical Research</i> , <b>2009</b> , 114,		47
71	Wintertime pollution over the Eastern Indo-Gangetic Plains as observed from MOPITT, CALIPSO and tropospheric ozone residual data. <i>Atmospheric Chemistry and Physics</i> , <b>2010</b> , 10, 12273-12283	6.8	47
70	Retrievals of carbon monoxide profiles from MOPITT observations using lognormal a priori statistics. <i>Journal of Geophysical Research</i> , <b>2007</b> , 112,		46

69	A satellite observation system simulation experiment for carbon monoxide in the lowermost troposphere. <i>Journal of Geophysical Research</i> , <b>2009</b> , 114,		44
68	Measurement of low-altitude CO over the Indian subcontinent by MOPITT. <i>Journal of Geophysical Research</i> , <b>2008</b> , 113,		39
67	Satellite-based estimates of reduced CO and CO <sub>2</sub> emissions due to traffic restrictions during the 2008 Beijing Olympics. <i>Geophysical Research Letters</i> , <b>2012</b> , 39, n/a-n/a	4.9	38
66	Effects of a Spectral Surface Reflectance on Measurements of Backscattered Solar Radiation: Application to the MOPITT Methane Retrieval. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>2005</b> , 22, 566-574	2	38
65	Radiance-based retrieval bias mitigation for the MOPITT instrument: the version 8 product. <i>Atmospheric Measurement Techniques</i> , <b>2019</b> , 12, 4561-4580	4	37
64	An examination of the long-term CO records from MOPITT and IASI: comparison of retrieval methodology. <i>Atmospheric Measurement Techniques</i> , <b>2015</b> , 8, 4313-4328	4	37
63	Comparing optimized CO emission estimates using MOPITT or NOAA surface network observations. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		35
62	A HYBRID EDDINGTON-SINGLE SCATTERING RADIATIVE TRANSFER MODEL FOR COMPUTING RADIANCES FROM THERMALLY EMITTING ATMOSPHERES. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , <b>1998</b> , 60, 635-648	2.1	35
61	Evaluation of operational radiances for the Measurements of Pollution in the Troposphere (MOPITT) instrument CO thermal band channels. <i>Journal of Geophysical Research</i> , <b>2004</b> , 109, n/a-n/a		35
60	Spatial and temporal variation of MOPITT CO in Africa and South America: A comparison with SHADOZ ozone and MODIS aerosol. <i>Journal of Geophysical Research</i> , <b>2004</b> , 109,		35
59	Identification of CO plumes from MOPITT data: Application to the August 2000 Idaho-Montana forest fires. <i>Geophysical Research Letters</i> , <b>2003</b> , 30,	4.9	34
58	Validation of MOPITT carbon monoxide using ground-based Fourier transform infrared spectrometer data from NDACC. <i>Atmospheric Measurement Techniques</i> , <b>2017</b> , 10, 1927-1956	4	26
57	Interannual variability of carbon monoxide emission estimates over South America from 2006 to 2010. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		25
56	Submicroampere-per-root-hertz current sensor based on the Faraday effect in Ga:YIG. <i>Optics Letters</i> , <b>1993</b> , 18, 1471-3	3	25
55	Faraday effect current sensor with improved sensitivity - bandwidth product. <i>Optics Letters</i> , <b>1994</b> , 19, 1903	3	24
54	. <i>IEEE Transactions on Magnetism</i> , <b>1994</b> , 30, 4464-4466	2	24
53	Application of a bias estimator for the improved assimilation of Measurements of Pollution in the Troposphere (MOPITT) carbon monoxide retrievals. <i>Journal of Geophysical Research</i> , <b>2004</b> , 109,		23
52	Monitoring emissions from the 2015 Indonesian fires using CO satellite data. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2018</b> , 373,	5.8	23

51	A Novel Ice-Cloud Retrieval Algorithm Based on the Millimeter-Wave Imaging Radiometer (MIR) 150- and 220-GHz Channels. <i>Journal of Applied Meteorology and Climatology</i> , <b>2000</b> , 39, 623-633		19
50	High frequency magnetic field sensors based on the Faraday effect in garnet thick films. <i>Applied Physics Letters</i> , <b>1992</b> , 60, 2048-2050	3.4	19
49	Information content of MOPITT CO profile retrievals: Temporal and geographical variability. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2015</b> , 120, 12723-12738	4.4	18
48	Averaging kernel prediction from atmospheric and surface state parameters based on multiple regression for nadir-viewing satellite measurements of carbon monoxide and ozone. <i>Atmospheric Measurement Techniques</i> , <b>2013</b> , 6, 1633-1646	4	18
47	Assimilation of the 2000-2001 CO MOPITT retrievals with optimized surface emissions. <i>Geophysical Research Letters</i> , <b>2004</b> , 31,	4.9	17
46	Sensitivity limits to ferrimagnetic Faraday effect magnetic field sensors. <i>Journal of Applied Physics</i> , <b>1991</b> , 70, 6407-6409	2.5	17
45	Fiber-optic Faraday-effect magnetic-field sensor based on flux concentrators. <i>Applied Optics</i> , <b>1996</b> , 35, 154-7	1.7	16
44	13 years of MOPITT operations: lessons from MOPITT retrieval algorithm development. <i>Annals of Geophysics</i> , <b>2014</b> ,	1.1	16
43	Validation and analysis of MOPITT CO observations of the Amazon Basin. <i>Atmospheric Measurement Techniques</i> , <b>2016</b> , 9, 3999-4012	4	16
42	Assessing the impacts of assimilating IASI and MOPITT CO retrievals using CESM-CAM-chem and DART. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2015</b> , 120, 10,501	4.4	15
41	Estimates of 4.7 $\mu$ m surface emissivity and their impact on the retrieval of tropospheric carbon monoxide by Measurements of Pollution in the Troposphere (MOPITT). <i>Journal of Geophysical Research</i> , <b>2005</b> , 110,		15
40	New dual-frequency microwave technique for retrieving liquid water path over land. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111,		15
39	Air pollution trends measured from Terra: CO and AOD over industrial, fire-prone, and background regions. <i>Remote Sensing of Environment</i> , <b>2021</b> , 256, 112275	13.2	15
38	Quantifying pyroconvective injection heights using observations of fire energy: sensitivity of spaceborne observations of carbon monoxide. <i>Atmospheric Chemistry and Physics</i> , <b>2015</b> , 15, 4339-4355	6.8	14
37	AMSU-B Observations of Mixed-Phase Clouds over Land. <i>Journal of Applied Meteorology and Climatology</i> , <b>2005</b> , 44, 72-85		14
36	Relationship between Measurements of Pollution in the Troposphere (MOPITT) and in situ observations of CO based on a large-scale feature sampled during TRACE-P. <i>Journal of Geophysical Research</i> , <b>2004</b> , 109,		14
35	1.5 years of TROPOMI CO measurements: comparisons to MOPITT and ATom. <i>Atmospheric Measurement Techniques</i> , <b>2020</b> , 13, 4841-4864	4	14
34	. <i>IEEE Transactions on Magnetics</i> , <b>1988</b> , 24, 2470-2472	2	13

33	Carbon monoxide (CO) maximum over the Zagros mountains in the Middle East: Signature of mountain venting?. <i>Geophysical Research Letters</i> , <b>2006</b> , 33,	4.9	12
32	Magneto-optic magnetic field sensor with 1.4 pT/(Hz) minimum detectable field at 1 kHz. <i>Electronics Letters</i> , <b>1993</b> , 29, 993-994	1.1	12
31	Quantification of CO emissions from the city of Madrid using MOPITT satellite retrievals and WRF simulations. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 14675-14694	6.8	11
30	Operational Validation of the MOPITT Instrument Optical Filters*. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>2002</b> , 19, 1772-1782	2	11
29	. <i>IEEE Transactions on Magnetics</i> , <b>1993</b> , 29, 3402-3404	2	11
28	Validation of nine years of MOPITT V5 NIR using MOZAIC/IAGOS measurements: biases and long-term stability. <i>Atmospheric Measurement Techniques</i> , <b>2014</b> , 7, 3783-3799	4	10
27	Satellite-Based Analysis of CO Seasonal and Interannual Variability Over the Amazon Basin. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2018</b> , 123, 5641-5656	4.4	9
26	Effects of incident angle on readout in magneto-optic storage media. <i>Applied Optics</i> , <b>1988</b> , 27, 713-6	1.7	9
25	Assessing Measurements of Pollution in the Troposphere (MOPITT) carbon monoxide retrievals over urban versus non-urban regions. <i>Atmospheric Measurement Techniques</i> , <b>2020</b> , 13, 1337-1356	4	8
24	Determination of optical constants by angle scanning reflectometry. <i>Applied Optics</i> , <b>1989</b> , 28, 2911-3	1.7	8
23	Links Between Carbon Monoxide and Climate Indices for the Southern Hemisphere and Tropical Fire Regions. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2018</b> , 123, 9786-9800	4.4	8
22	Comparison of upper tropospheric carbon monoxide from MOPITT, ACE-FTS, and HIPPO-QCLS. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2014</b> , 119, 14,144-14,164	4.4	7
21	Domain effects in Faraday effect sensors based on iron garnets. <i>Applied Optics</i> , <b>1995</b> , 34, 655-8	1.7	7
20	Faraday-effect magnetic field sensors based on substituted iron garnets <b>1991</b> , 1367, 243		6
19	First satellite identification of volcanic carbon monoxide. <i>Geophysical Research Letters</i> , <b>2012</b> , 39, n/a-n/a	4.9	5
18	Mesoscale Variations of Water Vapor Inferred from the Millimeter-Wave Imaging Radiometer during TOGA COARE. <i>Journal of Applied Meteorology and Climatology</i> , <b>1997</b> , 36, 183-188		5
17	Molecular field theory analysis of magneto-optic sensitivity of gallium-substituted yttrium iron garnets. <i>Applied Physics Letters</i> , <b>1996</b> , 69, 702-704	3.4	4
16	. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>1995</b> , 44, 464-467	5.2	4

15	Optical probing of magnetic inert layers. <i>Applied Optics</i> , <b>1987</b> , 26, 3153-7	1.7	4
14	Measurements of Pollution In The Troposphere (MOPITT) validation through 2006		4
13	An examination of the long-term CO records from MOPITT and IASI: comparison of retrieval methodology <b>2015</b> ,		3
12	. <i>IEEE Transactions on Magnetics</i> , <b>1992</b> , 28, 3234-3236	2	3
11	Determination of effective optical constants of magnetic multilayers. <i>Applied Physics Letters</i> , <b>1989</b> , 54, 2059-2061	3-4	3
10	The MOPITT Version 6 product: algorithm enhancements and validation		3
9	Carbon monoxide total column retrievals by use of the measurements of pollution in the troposphere airborne test radiometer. <i>Applied Optics</i> , <b>2004</b> , 43, 4685-96	1.7	2
8	Quantifying pyroconvective injection heights using observations of fire energy: sensitivity of space-borne observations of carbon monoxide		2
7	New seasonal pattern of pollution emerges from changing North American wildfires.. <i>Nature Communications</i> , <b>2022</b> , 13, 2043	17.4	2
6	Averaging kernel prediction from atmospheric and surface state parameters based on multiple regression with MOPITT CO and TES-OMI O <sub>3</sub> ; multispectral observations <b>2013</b> ,		1
5	Jones matrix analysis of incident angle effects in magneto-optic storage media. <i>Applied Optics</i> , <b>1989</b> , 28, 335-9	1.7	1
4	Analysis of improvements in MOPITT observational coverage over Canada. <i>Atmospheric Measurement Techniques</i> , <b>2022</b> , 15, 701-719	4	1
3	Impact of deep convection on the tropical tropopause layer composition in Equatorial Brazil		1
2	Decadal record of satellite carbon monoxide observations		1
1	The MOPITT Version 9 CO product: sampling enhancements and validation. <i>Atmospheric Measurement Techniques</i> , <b>2022</b> , 15, 2325-2344	4	1