Vivienne H Payne

List of Publications by Year
in descending order

61	2,814	186265 28	182427 51
papers	citations	h-index	g-index

64	64	64	3111
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Validation and error estimation of AIRS MUSES CO profiles with HIPPO, ATom, and NOAA GML aircraft observations. Atmospheric Measurement Techniques, 2022, 15, 205-223.	3.1	4
2	Simulated multispectral temperature and atmospheric composition retrievals for the JPL GEO-IR Sounder. Atmospheric Measurement Techniques, 2022, 15, 1251-1267.	3.1	4
3	Nextâ€Generation Isoprene Measurements From Space: Detecting Daily Variability at High Resolution. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	11
4	Amazonian terrestrial water balance inferred from satellite-observed water vapor isotopes. Nature Communications, 2022, 13, 2686.	12.8	5
5	Satellite measurements of peroxyacetyl nitrate from the Cross-Track Infrared Sounder: comparison with ATom aircraft measurements. Atmospheric Measurement Techniques, 2022, 15, 3497-3511.	3.1	3
6	Evaluation of single-footprint AIRS CH₄ profile retrieval uncertainties using aircraft profile measurements. Atmospheric Measurement Techniques, 2021, 14, 335-354.	3.1	15
7	Air pollution trends measured from Terra: CO and AOD over industrial, fire-prone, and background regions. Remote Sensing of Environment, 2021, 256, 112275.	11.0	41
8	Evolution of Acyl Peroxynitrates (PANs) in Wildfire Smoke Plumes Detected by the Crossâ€Track Infrared Sounder (CrIS) Over the Western U.S. During Summer 2018. Geophysical Research Letters, 2021, 48, .	4.0	9
9	Absorption coefficient (ABSCO) tables for the Orbiting Carbon Observatories: Version 5.1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 255, 107217.	2.3	24
10	Satellite isoprene retrievals constrain emissions and atmospheric oxidation. Nature, 2020, 585, 225-233.	27.8	53
11	Corrigendum to â€œAbsorption coefficient (ABSCO) tables for the Orbiting Carbon Observatories: Version 5.1â€•[J. Quant. Spectrosc. Radiat. Transf. 255 (2020) 107217]. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 257, 107333.	2.3	1
12	Spectroscopic uncertainty impacts on OCO-2/3 retrievals of XCO2. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 257, 107360.	2.3	9
13	Comparison of optimal estimation HDOâ€•H₂O retrievals from AIRS with ORACLES measurements. Atmospheric Measurement Techniques, 2020, 13, 1825-1834.	3.1	6
14	Overview: Estimating and reporting uncertainties in remotely sensed atmospheric composition and temperature. Atmospheric Measurement Techniques, 2020, 13, 4393-4436.	3.1	31
15	Updated tropospheric chemistry reanalysis and emission estimates, TCR-2, for 2005â€“2018. Earth System Science Data, 2020, 12, 2223-2259.	9.9	54
16	FTS measurements of O2 collision-induced absorption in the 565â€“700â€¯nm region using a high pressure gas absorption cell. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 235, 232-243.	2.3	7
17	Direct retrieval of isoprene from satellite-based infrared measurements. Nature Communications, 2019, 10, 3811.	12.8	42
18	Characterization and evaluation of AIRS-based estimates of the deuterium content of water vapor. Atmospheric Measurement Techniques, 2019, 12, 2331-2339.	3.1	18

#	Article	IF	Citations
19	Modeling Study of the Air Quality Impact of Recordâ€Breaking Southern California Wildfires in December 2017. Journal of Geophysical Research D: Atmospheres, 2019, 124, 6554-6570.	3.3	19
20	Analysis of Water Vapor Absorption in the Farâ€Infrared and Submillimeter Regions Using Surface Radiometric Measurements From Extremely Dry Locations. Journal of Geophysical Research D: Atmospheres, 2019, 124, 8134-8160.	3.3	26
21	Using TES retrievals to investigate PAN in North American biomass burning plumes. Atmospheric Chemistry and Physics, 2018, 18, 5639-5653.	4.9	9
22	Improved retrievals of carbon dioxide from Orbiting Carbon Observatory-2 with the version 8 ACOS algorithm. Atmospheric Measurement Techniques, 2018, 11, 6539-6576.	3.1	188
23	Multispectrum analysis of the oxygen A-band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 186, 118-138.	2.3	67
24	High accuracy absorption coefficients for the Orbiting Carbon Observatory-2 (OCO-2) mission: Validation of updated carbon dioxide cross-sections using atmospheric spectra. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 213-223.	2.3	32
25	Commentary on â€œO 3 variability in the troposphere as observed by IASI over 2008â€“2016: Contribution of atmospheric chemistry and dynamicsâ€•by Wespes et al.. Journal of Geophysical Research D: Atmospheres, 2017, 122, 6130-6134.	3.3	1
26	Impact of intercontinental pollution transport on North American ozone air pollution: an HTAP phase 2 multi-model study. Atmospheric Chemistry and Physics, 2017, 17, 5721-5750.	4.9	51
27	Seasonal and spatial changes in trace gases over megacities from Aura TES observations: two case studies. Atmospheric Chemistry and Physics, 2017, 17, 9379-9398.	4.9	8
28	Lower-tropospheric CO₂ from near-infrared ACOS-GOSAT observations. Atmospheric Chemistry and Physics, 2017, 17, 5407-5438.	4.9	15
29	Spatial variability in tropospheric peroxyacetyl nitrate in the tropics from infrared satellite observations in 2005 and 2006. Atmospheric Chemistry and Physics, 2017, 17, 6341-6351.	4.9	9
30	The Orbiting Carbon Observatory-2: first 18Âmonths of science data products. Atmospheric Measurement Techniques, 2017, 10, 549-563.	3.1	180
31	PAN in the eastern Pacific free troposphere: A satellite view of the sources, seasonality, interannual variability, and timeline for trend detection. Journal of Geophysical Research D: Atmospheres, 2017, 122, 3614-3629.	3.3	17
32	A review of sources of systematic errors and uncertainties in observations and simulations at 183â€¯GHz. Atmospheric Measurement Techniques, 2016, 9, 2207-2221.	3.1	41
33	Quantification of uncertainties in OCO-2 measurements of XCO₂: simulations and linear error analysis. Atmospheric Measurement Techniques, 2016, 9, 5227-5238.	3.1	79
34	Line parameters including temperature dependences of self- and air-broadened line shapes of 12C16O2: 1.6-Î¼m region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 177, 117-144.	2.3	52
35	Line parameters including temperature dependences of air- and self-broadened line shapes of 12C16O2: 2.06-Î¼m region. Journal of Molecular Spectroscopy, 2016, 326, 21-47.	1.2	42
36	Satellite observations of ethylene (C2H4) from the Aura Tropospheric Emission Spectrometer: A scoping study. Atmospheric Environment, 2016, 141, 388-393.	4.1	6

#	Article	IF	Citations
37	Ozone export from East Asia: The role of PAN. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6555-6563.	3.3	24
38	Intercalibration of the GPM Microwave Radiometer Constellation. Journal of Atmospheric and Oceanic Technology, 2016, 33, 2639-2654.	1.3	93
39	A joint data record of tropospheric ozone from Aura-TES and MetOp-IASI. Atmospheric Chemistry and Physics, 2016, 16, 10229-10239.	4.9	17
40	TES observations of the interannual variability of PAN over Northern Eurasia and the relationship to springtime fires. Geophysical Research Letters, 2015, 42, 7230-7237.	4.0	15
41	Estimating global and North American methane emissions with high spatial resolution using GOSAT satellite data. Atmospheric Chemistry and Physics, 2015, 15, 7049-7069.	4.9	225
42	Quantifying lower tropospheric methane concentrations using GOSAT near-IR and TES thermal IR measurements. Atmospheric Measurement Techniques, 2015, 8, 3433-3445.	3.1	34
43	Impacts of updated spectroscopy on thermal infrared retrievals of methane evaluated with HIPPO data. Atmospheric Measurement Techniques, 2015, 8, 965-985.	3.1	18
44	An Assessment of SAPHIR Calibration Using Quality Tropical Soundings. Journal of Atmospheric and Oceanic Technology, 2015, 32, 61-78.	1.3	23
45	Extending the satellite data record of tropospheric ozone profiles from Aura-TES to MetOp-IASI: characterisation of optimal estimation retrievals. Atmospheric Measurement Techniques, 2014, 7, 4223-4236.	3.1	19
46	Satellite observations of peroxyacetyl nitrate from the Aura Tropospheric Emission Spectrometer. Atmospheric Measurement Techniques, 2014, 7, 3737-3749.	3.1	18
47	Pressure broadening of oxygen by water. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 133, 190-198.	2.3	15
48	Performance of the Line-By-Line Radiative Transfer Model (LBLRTM) for temperature, water vapor, and trace gas retrievals: recent updates evaluated with IASI case studies. Atmospheric Chemistry and Physics, 2013, 13, 6687-6711.	4.9	107
49	El NiÃ±o, the 2006 Indonesian peat fires, and the distribution of atmospheric methane. Geophysical Research Letters, 2013, 40, 4938-4943.	4.0	40
50	Development and recent evaluation of the MT_CKD model of continuum absorption. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 2520-2556.	3.4	333
51	Methanol from TES global observations: retrieval algorithm and seasonal and spatial variability. Atmospheric Chemistry and Physics, 2012, 12, 8189-8203.	4.9	28
52	Validation of TES methane with HIPPO aircraft observations: implications for inverse modeling of methane sources. Atmospheric Chemistry and Physics, 2012, 12, 1823-1832.	4.9	83
53	Water Vapor Continuum Absorption in the Microwave. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 2194-2208.	6.3	62
54	Emission Ratios for Ammonia and Formic Acid and Observations of Peroxy Acetyl Nitrate (PAN) and Ethylene in Biomass Burning Smoke as Seen by the Tropospheric Emission Spectrometer (TES). Atmosphere, 2011, 2, 633-654.	2.3	37

#	Article	IF	Citations
55	TES ammonia retrieval strategy and global observations of the spatial and seasonal variability of ammonia. Atmospheric Chemistry and Physics, 2011, 11, 10743-10763.	4.9	129
56	Long-term stability of TES satellite radiance measurements. Atmospheric Measurement Techniques, 2011, 4, 1481-1490.	3.1	22
57	A farâ€infrared radiative closure study in the Arctic: Application to water vapor. Journal of Geophysical Research, 2010, 115, .	3.3	62
58	Comparison of Ground-Based Millimeter-Wave Observations and Simulations in the Arctic Winter. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 3098-3106.	6.3	31
59	Performance of the line-by-line radiative transfer model (LBLRTM) for temperature and species retrievals: IASI case studies from JAIVEx. Atmospheric Chemistry and Physics, 2009, 9, 7397-7417.	4.9	99
60	Air-Broadened Half-Widths of the 22- and 183-GHz Water-Vapor Lines. IEEE Transactions on Geoscience and Remote Sensing, 2008, 46, 3601-3617.	6.3	71
61	Effect of the Oxygen Line-Parameter Modeling on Temperature and Humidity Retrievals From Ground-Based Microwave Radiometers. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 2216-2223.	6.3	30