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List of Publications by Year in descending order

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2,805
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docs citations

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times ranked

3135
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#	ARTICLE	IF	CITATIONS
1	Comparisons of the Orbiting Carbon Observatory-2 (OCO-2) measurements with TCCON. Atmospheric Measurement Techniques, 2017, 10, 2209-2238.		
2	Tropospheric Ozone Assessment Report: Present-day distribution and trends of tropospheric ozone relevant to climate and global atmospheric chemistry model evaluation. Elementa, 2018, 6, .	1.1	240
3	Improved retrievals of carbon dioxide from Orbiting Carbon Observatory-2 with the version 8 ACOS algorithm. Atmospheric Measurement Techniques, 2018, 11, 6539-6576.	1.2	188
4	Characterisation of TSP and PM _{2.5} at Izaña and Sta. Cruz de Tenerife (Canary Islands, Spain) during a Saharan Dust Episode (July 2002). Atmospheric Environment, 2005, 39, 4715-4728.	1.9	187
5	Shortwave radiative forcing and efficiency of key aerosol types using AERONET data. Atmospheric Chemistry and Physics, 2012, 12, 5129-5145.	1.9	139
6	Process evaluation of tropospheric humidity simulated by general circulation models using water vapor isotopologues: 1. Comparison between models and observations. Journal of Geophysical Research, 2012, 117, .	3.3	114
7	Tropospheric Ozone Assessment Report: Tropospheric ozone from 1877 to 2016, observed levels, trends and uncertainties. Elementa, 2019, 7, .	1.1	103
8	Validation of AERONET estimates of atmospheric solar fluxes and aerosol radiative forcing by ground-based broadband measurements. Journal of Geophysical Research, 2008, 113, .	3.3	100
9	An update on ozone profile trends for the period 2000 to 2016. Atmospheric Chemistry and Physics, 2017, 17, 10675-10690.	1.9	93
10	Building the Collaborative Carbon Column Observing Network (COCCON): long-term stability and ensemble performance of the EM27/SUN Fourier transform spectrometer. Atmospheric Measurement Techniques, 2019, 12, 1513-1530.	1.2	82
11	Trends of ozone total columns and vertical distribution from FTIR observations at eight NDACC stations around the globe. Atmospheric Chemistry and Physics, 2015, 15, 2915-2933.	1.9	76
12	Mapping carbon monoxide pollution from space down to city scales with daily global coverage. Atmospheric Measurement Techniques, 2018, 11, 5507-5518.	1.2	75
13	Ground-based remote sensing of tropospheric water vapour isotopologues within the project MUSICA. Atmospheric Measurement Techniques, 2012, 5, 3007-3027.	1.2	69
14	Validation of methane and carbon monoxide from Sentinel-5 Precursor using TCCON and NDACC-IRWG stations. Atmospheric Measurement Techniques, 2021, 14, 6249-6304.	1.2	57
15	COVID-19 Crisis Reduces Free Tropospheric Ozone Across the Northern Hemisphere. Geophysical Research Letters, 2021, 48, e2020GL091987.	1.5	51
16	Long-term validation of tropospheric column-averaged CH ₄ mole fractions obtained by mid-infrared ground-based FTIR spectrometry. Atmospheric Measurement Techniques, 2012, 5, 1425-1441.	1.2	48
17	Investigating the long-term evolution of subtropical ozone profiles applying ground-based FTIR spectrometry. Atmospheric Measurement Techniques, 2012, 5, 2917-2931.	1.2	46
18	Validation of IASI FORLI carbon monoxide retrievals using FTIR data from NDACC. Atmospheric Measurement Techniques, 2012, 5, 2751-2761.	1.2	45

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19	Accomplishments of the MUSICA project to provide accurate, long-term, global and high-resolution observations of tropospheric {H ₂ O, ¹⁸ O, ¹⁷ O, ¹³ C, ¹⁵ N} pairs – a review. Atmospheric Measurement Techniques, 2016, 9, 2845-2875.	1.2	42
20	Using XCO ₂ retrievals for assessing the long-term consistency of NDACC/FTIR data sets. Atmospheric Measurement Techniques, 2015, 8, 1555-1573.	1.2	39
21	Tropospheric CH ₄ signals as observed by NDACC FTIR at globally distributed sites and comparison to GAW surface in situ measurements. Atmospheric Measurement Techniques, 2014, 7, 2337-2360.	1.2	38
22	The pulsating nature of large-scale Saharan dust transport as a result of interplays between mid-latitude Rossby waves and the North African Dipole Intensity. Atmospheric Environment, 2017, 167, 586-602.	1.9	37
23	NDACC harmonized formaldehyde time series from 21 FTIR stations covering a wide range of column abundances. Atmospheric Measurement Techniques, 2018, 11, 5049-5073.	1.2	37
24	Solar radiation measurements compared to simulations at the BSRN Izaña station. Mineral dust radiative forcing and efficiency study. Journal of Geophysical Research D: Atmospheres, 2014, 119, 179-194.	1.2	33
25	The recent increase of atmospheric methane from 10 years of ground-based NDACC FTIR observations since 2005. Atmospheric Chemistry and Physics, 2017, 17, 2255-2277.	1.9	33
26	Detecting moisture transport pathways to the subtropical North Atlantic free troposphere using paired H ₂ O and ¹⁸ O/ ¹⁷ O in situ measurements. Atmospheric Chemistry and Physics, 2016, 16, 4251-4269.	1.9	32
27	A global database of water vapor isotopes measured with high temporal resolution infrared laser spectroscopy. Scientific Data, 2019, 6, 180302.	2.4	31
28	The MUSICA MetOp/IASI H ₂ O and ¹⁸ O and ¹⁷ O products: characterisation and long-term comparison to NDACC/FTIR data. Atmospheric Measurement Techniques, 2014, 7, 2719-2732.	1.2	27
29	Tropospheric water vapour isotopologue data (H ₂ O, ¹⁸ O, ¹⁷ O) Tj ETQq1 1 0.784314 rgBT /Overlock 1 3.7 26 Earth System Science Data, 2017, 9, 15-29.	3.7	26
30	Empirical validation and proof of added value of MUSICA's tropospheric ¹⁷ O remote sensing products. Atmospheric Measurement Techniques, 2015, 8, 483-503.	1.2	24
31	Reconstruction of global solar radiation time series from 1933 to 2013 at the Izaña Atmospheric Observatory. Atmospheric Measurement Techniques, 2014, 7, 3139-3150.	1.2	22
32	Quantification of CH ₄ emissions from waste disposal sites near the city of Madrid using ground- and space-based observations of COCCON, TROPOMI and IASI. Atmospheric Chemistry and Physics, 2022, 22, 295-317.	1.9	21
33	Consistency and quality assessment of the Metop-A/IASI and Metop-B/IASI operational trace gas products (O ₃ , CO, N ₂ O) Tj ETQq1 1 0.784314 rgBT /Overlock 1 1.2 20 subtropical North Atlantic. Atmospheric Measurement Techniques, 2016, 9, 2315-2333.	1.2	20
34	Aerosol optical depth retrievals at the Izaña Atmospheric Observatory from 1941 to 2013 by using artificial neural networks. Atmospheric Measurement Techniques, 2016, 9, 53-62.	1.2	20
35	Aerosol radiative forcing efficiency in the UV region over southeastern Mediterranean: VELETA2002 campaign. Journal of Geophysical Research, 2007, 112, .	3.3	19
36	TCCON and NDACC XCO ₂ measurements: difference, discussion and application. Atmospheric Measurement Techniques, 2019, 12, 5979-5995.	1.2	19

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37	The MUSICA IASI CH ₄ and N ₂ O products and their comparison to HIPPO, GAW and NDACC FTIR references. Atmospheric Measurement Techniques, 2018, 11, 4171-4215.	1.2	18
38	Remote sensing of water vapour profiles in the framework of the Total Carbon Column Observing Network (TCCON). Atmospheric Measurement Techniques, 2010, 3, 1785-1795.	1.2	17
39	Validation of SCIAMACHY HDO/H ₂ O measurements using the TCCON and NDACC-MUSICA networks. Atmospheric Measurement Techniques, 2015, 8, 1799-1818.	1.2	17
40	Evaluation of MUSICA IASI tropospheric water vapour profiles using theoretical error assessments and comparisons to GRUAN Vaisala RS92 measurements. Atmospheric Measurement Techniques, 2018, 11, 4981-5006.	1.2	17
41	An 11-year record of XCO ₂ estimates derived from GOSAT measurements using the NASA ACOS version 9 retrieval algorithm. Earth System Science Data, 2022, 14, 325-360.	3.7	17
42	Radiative forcing under mixed aerosol conditions. Journal of Geophysical Research, 2011, 116, .	3.3	16
43	Cloudless aerosol forcing efficiency in the UV region from AERONET and WOUDC databases. Geophysical Research Letters, 2006, 33, .	1.5	15
44	MUSICA MetOp/IASI {H ₂ O, iD} pair retrieval simulations for validating tropospheric moisture pathways in atmospheric models. Atmospheric Measurement Techniques, 2017, 10, 507-525.	1.2	14
45	Hemispheric asymmetry in stratospheric NO ₂ trends. Atmospheric Chemistry and Physics, 2017, 17, 13373-13389.	1.9	13
46	Aerosol Radiative Forcing and Forcing Efficiency in the UVB for Regions Affected by Saharan and Asian Mineral Dust. Journals of the Atmospheric Sciences, 2009, 66, 1033-1040.	0.6	12
47	Global Atmospheric OCS Trend Analysis From 22 NDACC Stations. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	12
48	Twenty years of ground-based NDACC FTIR spectrometry at Izaña Observatory – overview and long-term comparison to other techniques. Atmospheric Chemistry and Physics, 2021, 21, 15519-15554.	1.9	11
49	The global and multi-annual MUSICA IASI {H ₂ O, iD} pair dataset. Earth System Science Data, 2021, 13, 5273-5292.	3.7	10
50	Improved calibration procedures for the EM27/SUN spectrometers of the COllaborative Carbon Column Observing Network (COCCON). Atmospheric Measurement Techniques, 2022, 15, 2433-2463.	1.2	10
51	Volcanic Eruption of Cumbre Vieja, La Palma, Spain: A First Insight to the Particulate Matter Injected in the Troposphere. Remote Sensing, 2022, 14, 2470.	1.8	10
52	Quality assessment of ozone total column amounts as monitored by ground-based solar absorption spectrometry in the near infrared (¹). Atmospheric Measurement Techniques, 2014, 7, 3071-3084.	1.2	9
53	Column Integrated Water Vapor and Aerosol Load Characterization with the New ZEN-R52 Radiometer. Remote Sensing, 2020, 12, 1424.	1.8	9
54	Characterization and potential for reducing optical resonances in Fourier transform infrared spectrometers of the Network for the Detection of Atmospheric Composition Change (NDACC). Atmospheric Measurement Techniques, 2021, 14, 1239-1252.	1.2	9

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55	Design and description of the MUSICA IASI full retrieval product. Earth System Science Data, 2022, 14, 709-742.	3.7	8
56	Intercomparison of stratospheric nitrogen dioxide columns retrieved from ground-based DOAS and FTIR and satellite DOAS instruments over the subtropical Izana station. Atmospheric Measurement Techniques, 2016, 9, 4471-4485.	1.2	7
57	Comparison of observed and modeled cloud-free longwave downward radiation (2010–2016) at the high mountain BSRN Izaña station. Geoscientific Model Development, 2018, 11, 2139-2152.	1.3	6
58	Validation of the IASI operational CH ₄ and N ₂ O products using ground-based Fourier Transform Spectrometer: preliminary results at the Izaña Observatory (28°N, 17°W). Annals of Geophysics, 2014, , .	0.5	6
59	Compatibility of different measurement techniques of global solar radiation and application for long-term observations at Izaña Observatory. Atmospheric Measurement Techniques, 2017, 10, 731-743.	1.2	5
60	The Adaptable 4A Inversion (5AI): description and first retrievals from Orbiting Carbon Observatory-2 (OCO-2) observations. Atmospheric Measurement Techniques, 2021, 14, 4689-4706.	1.2	5
61	Spectral Aerosol Optical Depth Retrievals by Ground-Based Fourier Transform Infrared Spectrometry. Remote Sensing, 2020, 12, 3148.	1.8	4
62	Water Vapor Retrievals from Spectral Direct Irradiance Measured with an EKO MS-711 Spectroradiometer – Intercomparison with Other Techniques. Remote Sensing, 2021, 13, 350.	1.8	4
63	Improved ozone monitoring by ground-based FTIR spectrometry. Atmospheric Measurement Techniques, 2022, 15, 2557-2577.	1.2	4
64	A methodology to evaluate the aerosol effective radius based on MODIS aerosol products applicable to other satellite platforms. International Journal of Remote Sensing, 2009, 30, 2197-2214.	1.3	2
65	CO ₂ total column amounts at TCCON sites Izana (28.3 N, 16.5 W) and Karlsruhe (49.1 N, 8.5 E) , 2013, , .		0
66	A compact and low resolution spectrometer for the inversion of water vapor total column amounts. , 2013, , .		0
67	Monitorización de las concentraciones atmosféricas de metano y óxido nítrico a partir del Metop/IASI. Revista De Teledetección, 2020, , 1.	0.6	0
68	Nitrous Oxide Profiling from Infrared Radiances (NOPIR): Algorithm Description, Application to 10 Years of IASI Observations and Quality Assessment. Remote Sensing, 2022, 14, 1810.	1.8	0