Pierre Francois Coheur

List of Publications by Year
in descending order

82	6,168	81839 39	79644 73
papers	citations	h-index	g-index

85	85	85	4925
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Understanding the Simulated Ammonia Increasing Trend from 2008 to 2015 over Europe with CHIMERE and Comparison with IASI Observations. Atmosphere, 2022, 13, 1101.	1.0	2
2	Ground-based measurements of atmospheric NH3 by Fourier transform infrared spectrometry at Hefei and comparisons with IASI data. Atmospheric Environment, 2022, 287, 119256.	1.9	6
3	First retrievals of peroxyacetyl nitrate (PAN) from ground-based FTIR solar spectra recorded at remote sites, comparison with model and satellite data. Elementa, 2021, 9, .	1.1	7
4	High-resolution hybrid inversion of IASI ammonia columns to constrain US ammonia emissions using the CMAQ adjoint model. Atmospheric Chemistry and Physics, 2021, 21, 2067-2082.	1.9	22
5	Multiscale observations of NH₃ around Toronto, Canada. Atmospheric Measurement Techniques, 2021, 14, 905-921.	1.2	7
6	Seasonal and Spatial Variability of Carbon Monoxide (CO) in the Martian Atmosphere From PFS/MEX Observations. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006480.	1.5	6
7	Monthly Patterns of Ammonia Over the Contiguous United States at 2â€‰km Resolution. Geophysical Research Letters, 2021, 48, e2020GL090579.	1.5	16
8	Identification of Short and Longâ€‘Lived Atmospheric Trace Gases From IASI Space Observations. Geophysical Research Letters, 2021, 48, e2020GL091742.	1.5	9
9	Model and Satellite Analysis of Transport of Asian Anthropogenic Pollution to the Arctic: Siberian and Pacific Pathways and Their Meteorological Controls. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033459.	1.2	5
10	Ubiquitous atmospheric production of organic acids mediated by cloud droplets. Nature, 2021, 593, 233-237.	13.7	71
11	Validation of IASI Satellite Ammonia Observations at the Pixel Scale Using In Situ Vertical Profiles. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033475.	1.2	28
12	Global, regional and national trends of atmospheric ammonia derived from a decadal (2008â€“2018) satellite record. Environmental Research Letters, 2021, 16, 055017.	2.2	65
13	The Diel Cycle of NH₃ Observed From the FYâ€‘4A Geostationary Interferometric Infrared Sounder (GIIRS). Geophysical Research Letters, 2021, 48, e2021GL093010.	1.5	11
14	The impact of organic pollutants from Indonesian peatland fires on the tropospheric and lower stratospheric composition. Atmospheric Chemistry and Physics, 2021, 21, 11257-11288.	1.9	8
15	Atmospheric Impacts of COVID-19 on NOx and VOC Levels over China Based on TROPOMI and IASI Satellite Data and Modeling. Atmosphere, 2021, 12, 946.	1.0	13
16	Transport and Variability of Tropospheric Ozone over Oceania and Southern Pacific during the 2019â€“20 Australian Bushfires. Remote Sensing, 2021, 13, 3092.	1.8	2
17	UK Ammonia Emissions Estimated With Satellite Observations and GEOSâ€‘Chem. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035237.	1.2	24
18	Ammonia and PM2.5 Air Pollution in Paris during the 2020 COVID Lockdown. Atmosphere, 2021, 12, 160.	1.0	32

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19	Changes in biomass burning, wetland extent, or agriculture drive atmospheric NH₃ trends in select African regions. Atmospheric Chemistry and Physics, 2021, 21, 16277-16291.	1.9	3
20	A space view of agricultural and industrial changes during the Syrian civil war. Elementa, 2021, 9, .	1.1	3
21	Record high levels of atmospheric ammonia over India: Spatial and temporal analyses. Science of the Total Environment, 2020, 740, 139986.	3.9	61
22	Antarctic Ozone Enhancement During the 2019 Sudden Stratospheric Warming Event. Geophysical Research Letters, 2020, 47, e2020GL087810.	1.5	40
23	Spaceborne Measurements of Formic and Acetic Acids: A Global View of the Regional Sources. Geophysical Research Letters, 2020, 47, e2019GL086239.	1.5	21
24	Do alternative inventories converge on the spatiotemporal representation of spring ammonia emissions in France?. Atmospheric Chemistry and Physics, 2020, 20, 13481-13495.	1.9	11
25	Unprecedented Atmospheric Ammonia Concentrations Detected in the High Arctic From the 2017 Canadian Wildfires. Journal of Geophysical Research D: Atmospheres, 2019, 124, 8178-8202.	1.2	25
26	Tracking down global NH₃ point sources with wind-adjusted superresolution. Atmospheric Measurement Techniques, 2019, 12, 5457-5473.	1.2	39
27	Atmospheric ammonia (NH3) emanations from Lake Natronâ€™s saline mudflats. Scientific Reports, 2019, 9, 4441.	1.6	24
28	A Decadal Data Set of Global Atmospheric Dust Retrieved From IASI Satellite Measurements. Journal of Geophysical Research D: Atmospheres, 2019, 124, 1618-1647.	1.2	32
29	Acetone Atmospheric Distribution Retrieved From Space. Geophysical Research Letters, 2019, 46, 2884-2893.	1.5	18
30	NH₃ emissions from large point sources derived from CrIS and IASI satellite observations. Atmospheric Chemistry and Physics, 2019, 19, 12261-12293.	1.9	89
31	Is the recovery of stratospheric O₃ speeding up in the Southern Hemisphere? An evaluation from the first IASI decadal record (2008â€“2017). Atmospheric Chemistry and Physics, 2019, 19, 14031-14056.	1.9	9
32	Topâ€Down CO Emissions Based On IASI Observations and Hemispheric Constraints on OH Levels. Geophysical Research Letters, 2018, 45, 1621-1629.	1.5	23
33	Spatio-temporal variations of nitric acid total columns from 9 years of IASI measurements â€“ a driver study. Atmospheric Chemistry and Physics, 2018, 18, 4403-4423.	1.9	3
34	A General Framework for Global Retrievals of Trace Gases From IASI: Application to Methanol, Formic Acid, and PAN. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,963.	1.2	38
35	A physics-based approach to oversample multi-satellite, multispecies observations to a common grid. Atmospheric Measurement Techniques, 2018, 11, 6679-6701.	1.2	64
36	Industrial and agricultural ammonia point sources exposed. Nature, 2018, 564, 99-103.	13.7	312

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37	Validation of the IASI FORLI/EUMETSAT ozone products using satellite (GOME-2), ground-based (Brewerâ€“Dobson, SAOZ, FTIR) and ozonesonde measurements. Atmospheric Measurement Techniques, 2018, 11, 5125-5152.	1.2	47
38	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
39	IASI's sensitivity to near-surface carbon monoxide (CO): Theoretical analyses and retrievals on test cases. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 189, 428-440.	1.1	23
40	Ammonia Emissions May Be Substantially Underestimated in China. Environmental Science & Technology, 2017, 51, 12089-12096.	4.6	160
41	Gasâ€aerosol partitioning of ammonia in biomass burning plumes: Implications for the interpretation of spaceborne observations of ammonia and the radiative forcing of ammonium nitrate. Geophysical Research Letters, 2017, 44, 8084-8093.	1.5	30
42	IASI-derived NH₃ enhancement ratios relative to CO for the tropical biomass burning regions. Atmospheric Chemistry and Physics, 2017, 17, 12239-12252.	1.9	12
43	Determination of enhancement ratios of HCOOH relative to CO in biomass burning plumes by the Infrared Atmospheric Sounding Interferometer (IASI). Atmospheric Chemistry and Physics, 2017, 17, 11089-11105.	1.9	6
44	Version 2 of the IASI NH₃ neural network retrieval algorithm: near-real-time and reanalysed datasets. Atmospheric Measurement Techniques, 2017, 10, 4905-4914.	1.2	118
45	Retrieval of near-surface sulfur dioxide (SO₂) concentrations at a global scale using IASI satellite observations. Atmospheric Measurement Techniques, 2016, 9, 721-740.	1.2	36
46	First characterization and validation of FORLI-HNO₃ vertical profiles retrieved from IASI/Metop. Atmospheric Measurement Techniques, 2016, 9, 4783-4801.	1.2	15
47	A flexible and robust neural network IASIâ€NH₃ retrieval algorithm. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6581-6599.	1.2	96
48	Substantial Underestimation of Post-Harvest Burning Emissions in the North China Plain Revealed by Multi-Species Space Observations. Scientific Reports, 2016, 6, 32307.	1.6	49
49	Doubling of annual ammonia emissions from the peat fires in Indonesia during the 2015 El NiÃ±o. Geophysical Research Letters, 2016, 43, 11,007.	1.5	41
50	Unaccounted variability in NH 3 agricultural sources detected by IASI contributing to European spring haze episode. Geophysical Research Letters, 2016, 43, 5475-5482.	1.5	37
51	Interannual variability of ammonia concentrations over the United States: sources and implications. Atmospheric Chemistry and Physics, 2016, 16, 12305-12328.	1.9	48
52	HCOOH distributions from IASI for 2008â€“2014: comparison with ground-based FTIR measurements and a global chemistry-transport model. Atmospheric Chemistry and Physics, 2016, 16, 8963-8981.	1.9	13
53	Worldwide spatiotemporal atmospheric ammonia (NH₃) columns variability revealed by satellite. Geophysical Research Letters, 2015, 42, 8660-8668.	1.5	66
54	An examination of the long-term CO records from MOPITT and IASI: comparison of retrieval methodology. Atmospheric Measurement Techniques, 2015, 8, 4313-4328.	1.2	50

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55	Ammonia emissions in tropical biomass burning regions: Comparison between satellite-derived emissions and bottom-up fire inventories. Atmospheric Environment, 2015, 121, 42-54.	1.9	78
56	Towards IASI-New Generation (IASI-NG): impact of improved spectral resolution and radiometric noise on the retrieval of thermodynamic, chemistry and climate variables. Atmospheric Measurement Techniques, 2014, 7, 4367-4385.	1.2	110
57	IASI observations of sulfur dioxide (SO₂) in the boundary layer of Norilsk. Journal of Geophysical Research D: Atmospheres, 2014, 119, 4253-4263.	1.2	42
58	Evaluating 4 years of atmospheric ammonia (NH₃) over Europe using IASI satellite observations and LOTOSâ€EUROS model results. Journal of Geophysical Research D: Atmospheres, 2014, 119, 9549-9566.	1.2	61
59	A unified approach to infrared aerosol remote sensing and type specification. Atmospheric Chemistry and Physics, 2013, 13, 2195-2221.	1.9	105
60	Exceptional emissions of NH₃ and HCOOH in the 2010 Russian wildfires. Atmospheric Chemistry and Physics, 2013, 13, 4171-4181.	1.9	76
61	Retrieval of sulphur dioxide from the infrared atmospheric sounding interferometer (IASI). Atmospheric Measurement Techniques, 2012, 5, 581-594.	1.2	150
62	Hyperspectral Earth Observation from IASI: Five Years of Accomplishments. Bulletin of the American Meteorological Society, 2012, 93, 347-370.	1.7	357
63	Validation of IASI FORLI carbon monoxide retrievals using FTIR data from NDACC. Atmospheric Measurement Techniques, 2012, 5, 2751-2761.	1.2	45
64	Antarctic ozone hole as observed by IASI/MetOp for 2008â€“2010. Atmospheric Measurement Techniques, 2012, 5, 123-139.	1.2	27
65	Satellite evidence for a large source of formic acid from boreal and tropical forests. Nature Geoscience, 2012, 5, 26-30.	5.4	171
66	Assimilation of IASI satellite CO fields into a global chemistry transport model for validation against aircraft measurements. Atmospheric Chemistry and Physics, 2012, 12, 4493-4512.	1.9	23
67	Tropospheric methanol observations from space: retrieval evaluation and constraints on the seasonality of biogenic emissions. Atmospheric Chemistry and Physics, 2012, 12, 5897-5912.	1.9	39
68	Atmospheric ammonia and particulate inorganic nitrogen over the United States. Atmospheric Chemistry and Physics, 2012, 12, 10295-10312.	1.9	240
69	FORLI radiative transfer and retrieval code for IASI. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1391-1408.	1.1	162
70	Thermal infrared nadir observations of 24 atmospheric gases. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	88
71	Intercontinental transport of anthropogenic sulfur dioxide and other pollutants: An infrared remote sensing case study. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	32
72	First space-based derivation of the global atmospheric methanol emission fluxes. Atmospheric Chemistry and Physics, 2011, 11, 4873-4898.	1.9	122

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73	IASI carbon monoxide validation over the Arctic during POLARCAT spring and summer campaigns. Atmospheric Chemistry and Physics, 2010, 10, 10655-10678.	1.9	65
74	Satellite monitoring of ammonia: A case study of the San Joaquin Valley. Journal of Geophysical Research, 2010, 115, .	3.3	118
75	Retrieving radius, concentration, optical depth, and mass of different types of aerosols from high-resolution infrared nadir spectra. Applied Optics, 2010, 49, 3713.	2.1	80
76	Global ammonia distribution derived from infrared satellite observations. Nature Geoscience, 2009, 2, 479-483.	5.4	400
77	IASI measurements of reactive trace species in biomass burning plumes. Atmospheric Chemistry and Physics, 2009, 9, 5655-5667.	1.9	165
78	Monitoring of atmospheric composition using the thermal infrared IASI/MetOp sounder. Atmospheric Chemistry and Physics, 2009, 9, 6041-6054.	1.9	694
79	Carbon monoxide distributions from the IASI/METOP mission: evaluation with other space-borne remote sensors. Atmospheric Chemistry and Physics, 2009, 9, 8317-8330.	1.9	208
80	On the capability of IASI measurements to inform about CO surface emissions. Atmospheric Chemistry and Physics, 2009, 9, 8735-8743.	1.9	42
81	ACE-FTS observation of a young biomass burning plume: first reported measurements of C₂H₄, C₃H₆O, H₂CO and PAN by infrared occultation from space. Atmospheric Chemistry and Physics, 2007, 7, 5437-5446.	1.9	119
82	Retrieval and characterization of ozone vertical profiles from a thermal infrared nadir sounder. Journal of Geophysical Research, 2005, 110, .	3.3	108