

Ilse Aben

List of Publications by Year in descending order

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45
papers

4,324
citations

172457

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48
all docs

48
docs citations

48
times ranked

3477
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluating urban methane emissions from space using TROPOMI methane and carbon monoxide observations. Remote Sensing of Environment, 2022, 268, 112756.	11.0	23
2	Reconstructing and quantifying methane emissions from the full duration of a 38-day natural gas well blowout using space-based observations. Remote Sensing of Environment, 2022, 270, 112755.	11.0	7
3	Satellites Detect Abatable Super-Emissions in One of the World's Largest Methane Hotspot Regions. Environmental Science & Technology, 2022, 56, 2143-2152.	10.0	40
4	Special issue on remote sensing of greenhouse gas emissions. Remote Sensing of Environment, 2022, 277, 113069.	11.0	1
5	A high-resolution gridded inventory of coal mine methane emissions for India and Australia. Elementa, 2022, 10, .	3.2	5
6	Multisatellite Imaging of a Gas Well Blowout Enables Quantification of Total Methane Emissions. Geophysical Research Letters, 2021, 48, e2020GL090864.	4.0	39
7	Deep convolutional neural networks for surface coal mines determination from sentinel-2 images. European Journal of Remote Sensing, 2021, 54, 296-309.	3.5	16
8	Systematic detection of local CH ₄ anomalies by combining satellite measurements with high-resolution forecasts. Atmospheric Chemistry and Physics, 2021, 21, 5117-5136.	4.9	24
9	Satellite-based survey of extreme methane emissions in the Permian basin. Science Advances, 2021, 7, .	10.3	66
10	Using satellite data to identify the methane emission controls of South Sudan's wetlands. Biogeosciences, 2021, 18, 557-572.	3.3	26
11	Methane Emissions from Superemitting Coal Mines in Australia Quantified Using TROPOMI Satellite Observations. Environmental Science & Technology, 2021, 55, 16573-16580.	10.0	39
12	Ensemble-based satellite-derived carbon dioxide and methane column-averaged dry-air mole fraction data sets (2003–2018) for carbon and climate applications. Atmospheric Measurement Techniques, 2020, 13, 789-819.	3.1	22
13	Quantifying methane emissions from the largest oil-producing basin in the United States from space. Science Advances, 2020, 6, eaaz5120.	10.3	155
14	Quantifying burning efficiency in megacities using the NO ₂ /CO ratio from the Tropospheric Monitoring Instrument (TROPOMI). Atmospheric Chemistry and Physics, 2020, 20, 10295-10310.	4.9	23
15	1.5 Years of TROPOMI CO measurements: comparisons to MOPITT and ATom. Atmospheric Measurement Techniques, 2020, 13, 4841-4864.	3.1	29
16	Satellite Discovery of Anomalously Large Methane Point Sources From Oil/Gas Production. Geophysical Research Letters, 2019, 46, 13507-13516.	4.0	127
17	Influence of Atmospheric Transport on Estimates of Variability in the Global Methane Burden. Geophysical Research Letters, 2019, 46, 2302-2311.	4.0	16
18	Carbon monoxide air pollution on sub-city scales and along arterial roads detected by the Tropospheric Monitoring Instrument. Atmospheric Chemistry and Physics, 2019, 19, 3579-3588.	4.9	41

#	ARTICLE	IF	CITATIONS
19	Full-physics carbon dioxide retrievals from the Orbiting Carbon Observatory-2 (OCO-2) satellite by only using the 2.06 μm band. Atmospheric Measurement Techniques, 2019, 12, 6049-6058.	3.1	8
20	Satellite observations reveal extreme methane leakage from a natural gas well blowout. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 26376-26381.	7.1	107
21	Toward Global Mapping of Methane With TROPOMI: First Results and Intersatellite Comparison to GOSAT. Geophysical Research Letters, 2018, 45, 3682-3689.	4.0	170
22	Detection of carbon monoxide pollution from cities and wildfires on regional and urban scales: the benefit of CO column retrievals from SCIAMACHY 2.3 μm measurements under cloudy conditions. Atmospheric Measurement Techniques, 2018, 11, 2553-2565.	3.1	17
23	Measuring Carbon Monoxide With TROPOMI: First Results and a Comparison With ECMWF IFS Analysis Data. Geophysical Research Letters, 2018, 45, 2826-2832.	4.0	82
24	Global satellite observations of column-averaged carbon dioxide and methane: The GHG-CCI XCO ₂ and XCH ₄ CRDP3 data set. Remote Sensing of Environment, 2017, 203, 276-295.	11.0	52
25	Enhanced methane emissions from tropical wetlands during the 2011 La Niña. Scientific Reports, 2017, 7, 45759.	3.3	41
26	Satellite-derived methane hotspot emission estimates using a fast data-driven method. Atmospheric Chemistry and Physics, 2017, 17, 5751-5774.	4.9	63
27	Carbon monoxide column retrieval for clear-sky and cloudy atmospheres: a full-mission data set from SCIAMACHY 2.3 μm reflectance measurements. Atmospheric Measurement Techniques, 2017, 10, 1769-1782. ^{3.1}	3.1	12
28	Carbon monoxide total columns from SCIAMACHY 2.3 μm atmospheric reflectance measurements: towards a full-mission data product (2003-2012). Atmospheric Measurement Techniques, 2016, 9, 227-248.	3.1	17
29	The operational methane retrieval algorithm for TROPOMI. Atmospheric Measurement Techniques, 2016, 9, 5423-5440.	3.1	93
30	Carbon monoxide total column retrievals from TROPOMI shortwave infrared measurements. Atmospheric Measurement Techniques, 2016, 9, 4955-4975.	3.1	92
31	Satellite observations of atmospheric methane and their value for quantifying methane emissions. Atmospheric Chemistry and Physics, 2016, 16, 14371-14396.	4.9	230
32	Anomalous carbon uptake in Australia as seen by GOSAT. Geophysical Research Letters, 2015, 42, 8177-8184.	4.0	45
33	A multi-year methane inversion using SCIAMACHY, accounting for systematic errors using TCCON measurements. Atmospheric Chemistry and Physics, 2014, 14, 3991-4012.	4.9	106
34	Reduced carbon uptake during the 2010 Northern Hemisphere summer from GOSAT. Geophysical Research Letters, 2013, 40, 2378-2383.	4.0	65
35	Impact of aerosol and thin cirrus on retrieving and validating XCO ₂ from GOSAT shortwave infrared measurements. Journal of Geophysical Research D: Atmospheres, 2013, 118, 4887-4905.	3.3	111
36	Improved water vapour spectroscopy in the 4174-4300 cm^{-1} region and its impact on SCIAMACHY HDO/H ₂ O measurements. Atmospheric Measurement Techniques, 2013, 6, 879-894.	3.1	30

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37	CH ₄ , CO, and H ₂ O spectroscopy for the Sentinel-5 Precursor mission: an assessment with the Total Carbon Column Observing Network measurements. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 1387-1398.	3.1	26
38	TROPOMI on the ESA Sentinel-5 Precursor: A GMES mission for global observations of the atmospheric composition for climate, air quality and ozone layer applications. <i>Remote Sensing of Environment</i> , 2012, 120, 70-83.	11.0	1,159
39	Carbon monoxide from shortwave infrared reflectance measurements: A new retrieval approach for clear sky and partially cloudy atmospheres. <i>Remote Sensing of Environment</i> , 2012, 120, 255-266.	11.0	34
40	Methane retrievals from Greenhouse Gases Observing Satellite (GOSAT) shortwave infrared measurements: Performance comparison of proxy and physics retrieval algorithms. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	128
41	Global column-averaged methane mixing ratios from 2003 to 2009 as derived from SCIAMACHY: Trends and variability. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	188
42	Toward accurate CO ₂ and CH ₄ observations from GOSAT. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	355
43	Retrievals of atmospheric CO ₂ from simulated space-borne measurements of backscattered near-infrared sunlight: accounting for aerosol effects. <i>Applied Optics</i> , 2009, 48, 3322.	2.1	146
44	SCIAMACHY CO over land and oceans: 2003–2007 interannual variability. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 3799-3813.	4.9	44
45	Tropical methane emissions: A revised view from SCIAMACHY onboard ENVISAT. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	199