Anna Karion

List of Publications by Year
in descending order

55 papers	5,148 citations	147801 31 h-index	155660 55 g-index
83 all docs	83 docs citations	83 times ranked	4429 citing authors

#	Article	IF	Citations
1	Assessment of methane emissions from the U.S. oil and gas supply chain. Science, 2018, 361, 186-188.	12.6	519
2	Methane emissions estimate from airborne measurements over a western United States natural gas field. Geophysical Research Letters, 2013, 40, 4393-4397.	4.0	414
3	Hydrocarbon emissions characterization in the Colorado Front Range: A pilot study. Journal of Geophysical Research, 2012, 117, .	3.3	359
4	Cold season emissions dominate the Arctic tundra methane budget. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 40-45.	7.1	278
5	A new look at methane and nonmethane hydrocarbon emissions from oil and natural gas operations in the Colorado Denverâ€Julesburg Basin. Journal of Geophysical Research D: Atmospheres, 2014, 119, 6836-6852.	3.3	257
6	Highâ€resolution atmospheric inversion of urban CO₂ emissions during the dormant season of the Indianapolis Flux Experiment (INFLUX). Journal of Geophysical Research D: Atmospheres, 2016, 121, 5213-5236.	3.3	219
7	Reconciling divergent estimates of oil and gas methane emissions. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15597-15602.	7.1	209
8	Aircraft-Based Estimate of Total Methane Emissions from the Barnett Shale Region. Environmental Science & Technology, 2015, 49, 8124-8131.	10.0	190
9	Aircraft-Based Measurements of the Carbon Footprint of Indianapolis. Environmental Science & Technology, 2009, 43, 7816-7823.	10.0	167
10	Understanding high wintertime ozone pollution events in an oil- and natural gas-producing region of the western US. Atmospheric Chemistry and Physics, 2015, 15, 411-429.	4.9	154
11	Seasonal climatology of CO₂ across North America from aircraft measurements in the NOAA/ESRL Global Greenhouse Gas Reference Network. Journal of Geophysical Research D: Atmospheres, 2015, 120, 5155-5190.	3.3	153
12	High accuracy measurements of dry mole fractions of carbon dioxide and methane in humid air. Atmospheric Measurement Techniques, 2013, 6, 837-860.	3.1	151
13	Carbon dioxide sources from Alaska driven by increasing early winter respiration from Arctic tundra. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5361-5366.	7.1	149
14	Assessment of fossil fuel carbon dioxide and other anthropogenic trace gas emissions from airborne measurements over Sacramento, California in spring 2009. Atmospheric Chemistry and Physics, 2011, 11, 705-721.	4.9	148
15	Toward quantification and source sector identification of fossil fuel CO₂ emissions from an urban area: Results from the INFLUX experiment. Journal of Geophysical Research D: Atmospheres, 2015, 120, 292-312.	3.3	140
16	Linking emissions of fossil fuel CO₂ and other anthropogenic trace gases using atmospheric ¹⁴CO₂. Journal of Geophysical Research, 2012, 117, .	3.3	121
17	Assessment of uncertainties of an aircraft-based mass balance approach for quantifying urban greenhouse gas emissions. Atmospheric Chemistry and Physics, 2014, 14, 9029-9050.	4.9	109
18	Airborne Ethane Observations in the Barnett Shale: Quantification of Ethane Flux and Attribution of Methane Emissions. Environmental Science & Technology, 2015, 49, 8158-8166.	10.0	100

#	Article	IF	Citations
19	Quantifying atmospheric methane emissions from oil and natural gas production in the Bakken shale region of North Dakota. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6101-6111.	3.3	99
20	Carbon dioxide and methane measurements from the Los Angeles Megacity Carbon Project â€“ PartÂ1: calibration, urban enhancements, and uncertainty estimates. Atmospheric Chemistry and Physics, 2017, 17, 8313-8341.	4.9	96
21	Aircraft-Based Measurements of Point Source Methane Emissions in the Barnett Shale Basin. Environmental Science & Technology, 2015, 49, 7904-7913.	10.0	93
22	Long-term greenhouse gas measurements from aircraft. Atmospheric Measurement Techniques, 2013, 6, 511-526.	3.1	87
23	Evaluation and environmental correction of ambient CO₂ measurements from a low-cost NDIR sensor. Atmospheric Measurement Techniques, 2017, 10, 2383-2395.	3.1	72
24	Accurate measurements of carbon monoxide in humid air using the cavity ring-down spectroscopy (CRDS) technique. Atmospheric Measurement Techniques, 2013, 6, 1031-1040.	3.1	64
25	The Indianapolis Flux Experiment (INFLUX): A test-bed for developing urban greenhouse gas emission measurements. Elementa, 2017, 5, .	3.2	59
26	Methane emissions from Alaska in 2012 from CARVE airborne observations. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16694-16699.	7.1	58
27	Quantifying methane emissions from natural gas production in north-eastern Pennsylvania. Atmospheric Chemistry and Physics, 2017, 17, 13941-13966.	4.9	54
28	Synthesis of Urban CO₂ Emission Estimates from Multiple Methods from the Indianapolis Flux Project (INFLUX). Environmental Science & Technology, 2019, 53, 287-295.	10.0	50
29	Quantification and source apportionment of the methane emission flux from the city of Indianapolis. Elementa, 2015, 3, .	3.2	50
30	Assessing the optimized precision of the aircraft mass balance method for measurement of urban greenhouse gas emission rates through averaging. Elementa, 2017, 5, .	3.2	46
31	A multiyear estimate of methane fluxes in Alaska from CARVE atmospheric observations. Global Biogeochemical Cycles, 2016, 30, 1441-1453.	4.9	36
32	An integrated flask sample collection system for greenhouse gas measurements. Atmospheric Measurement Techniques, 2012, 5, 2321-2327.	3.1	33
33	The Impact of COVIDâ€ 19 on CO₂ Emissions in the Los Angeles and Washington DC/Baltimore Metropolitan Areas. Geophysical Research Letters, 2021, 48, e2021GL092744.	4.0	32
34	Investigating sources of variability and error in simulations of carbon dioxide in an urban region. Atmospheric Environment, 2019, 199, 55-69.	4.1	28
35	Siting Background Towers to Characterize Incoming Air for Urban Greenhouse Gas Estimation: A Case Study in the Washington, DC/Baltimore Area. Journal of Geophysical Research D: Atmospheres, 2018, 123, 2910-2926.	3.3	27
36	Greenhouse gas observations from the Northeast Corridor tower network. Earth System Science Data, 2020, 12, 699-717.	9.9	27

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37	Investigating Alaskan methane and carbon dioxide fluxes using measurements from the CARVE tower. Atmospheric Chemistry and Physics, 2016, 16, 5383-5398.	4.9	26
38	Wintertime CO₂, CH₄, and CO Emissions Estimation for the Washington, DCâ€“Baltimore Metropolitan Area Using an Inverse Modeling Technique. Environmental Science & Technology, 2020, 54, 2606-2614.	10.0	25
39	Intercomparison of atmospheric trace gas dispersion models: Barnett Shale case study. Atmospheric Chemistry and Physics, 2019, 19, 2561-2576.	4.9	24
40	Atmospheric transport simulations in support of the Carbon in Arctic Reservoirs Vulnerability Experiment (CARVE). Atmospheric Chemistry and Physics, 2015, 15, 4093-4116.	4.9	22
41	An emerging GHG estimation approach can help cities achieve their climate and sustainability goals. Environmental Research Letters, 2021, 16, 084003.	5.2	22
42	Seasonally Resolved Excess Urban Methane Emissions from the Baltimore/Washington, DC Metropolitan Region. Environmental Science & Technology, 2019, 53, 11285-11293.	10.0	21
43	A Modified Vegetation Photosynthesis and Respiration Model (VPRM) for the Eastern USA and Canada, Evaluated With Comparison to Atmospheric Observations and Other Biospheric Models. Journal of Geophysical Research G: Biogeosciences, 2022, 127, e2021JG006290.	3.0	13
44	Bootstrap inversion technique for atmospheric trace gas source detection and quantification using long open-path laser measurements. Atmospheric Measurement Techniques, 2018, 11, 1565-1582.	3.1	12
45	Reducing errors in aircraft atmospheric inversion estimates of point-source emissions: the Aliso Canyon natural gas leak as a natural tracer experiment. Environmental Research Letters, 2018, 13, 045003.	5.2	10
46	Background conditions for an urban greenhouse gas network in the Washington, DC,Âand Baltimore metropolitan region. Atmospheric Chemistry and Physics, 2021, 21, 6257-6273.	4.9	10
47	The influence of daily meteorology on boreal fire emissions and regional trace gas variability. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 2793-2810.	3.0	9
48	O3, CH4, CO2, CO, NO2 and NMHC aircraft measurements in the Uinta Basin oil and gas region under low and high ozone conditions in winter 2012 and 2013. Elementa, 2016, 4, .	3.2	8
49	New York City greenhouse gas emissions estimated with inverse modeling of aircraft measurements. Elementa, 2022, 10, .	3.2	8
50	Carbon Monoxide Emissions from the Washington, DC, and Baltimore Metropolitan Area: Recent Trend and COVID-19 Anomaly. Environmental Science & Technology, 2022, 56, 2172-2180.	10.0	7
51	Assessment of Planetary Boundary Layer Parameterizations and Urban Heat Island Comparison: Impacts and Implications for Tracer Transport. Journal of Applied Meteorology and Climatology, 2020, 59, 1637-1653.	1.5	5
52	A multi-city urban atmospheric greenhouse gas measurement data synthesis. Scientific Data, 2022, 9, .	5.3	5
53	Greenhouse gas observations from the Northeast Corridor tower network. Earth System Science Data, 2020, 12, .	9.9	3
54	The impact of the COVID-19 lockdown on greenhouse gases: a multi-city analysis of in situ atmospheric observations. Environmental Research Communications, 2022, 4, 041004.	2.3	2

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55	Lidar Characterization of Boundary Layer Transport and Mixing for Estimating Urban-Scale Greenhouse Gas Emissions. EPJ Web of Conferences, 2016, 119, 09001.	0.3	1