Michelle Cain

List of Publications by Year
in descending order

36 papers	2,600 citations	331670 21 h-index	345221 36 g-index
48 all docs	48 docs citations	48 times ranked	3836 citing authors

#	Article	IF	Citations
1	Very Strong Atmospheric Methane Growth in the 4ÂYears 2014â€“2017: Implications for the Paris Agreement. Global Biogeochemical Cycles, 2019, 33, 318-342.	4.9	353
2	Rising atmospheric methane: 2007â€“2014 growth and isotopic shift. Global Biogeochemical Cycles, 2016, 30, 1356-1370.	4.9	317
3	Evidence for chorus-driven electron acceleration to relativistic energies from a survey of geomagnetically disturbed periods. Journal of Geophysical Research, 2003, 108, .	3.3	234
4	A solution to the misrepresentations of CO2-equivalent emissions of short-lived climate pollutants under ambitious mitigation. Npj Climate and Atmospheric Science, 2018, 1, .	6.8	230
5	Methane Mitigation: Methods to Reduce Emissions, on the Path to the Paris Agreement. Reviews of Geophysics, 2020, 58, e2019RG000675.	23.0	163
6	Improved calculation of warming-equivalent emissions for short-lived climate pollutants. Npj Climate and Atmospheric Science, 2019, 2, 29.	6.8	162
7	Demonstrating GWP*: a means of reporting warming-equivalent emissions that captures the contrasting impacts of short- and long-lived climate pollutants. Environmental Research Letters, 2020, 15, 044023.	5.2	161
8	Agriculture's Contribution to Climate Change and Role in Mitigation Is Distinct From Predominantly Fossil CO2-Emitting Sectors. Frontiers in Sustainable Food Systems, 2021, 4, 518039.	3.9	139
9	The many possible climates from the Paris Agreementâ€™s aim of 1.5 Â°C warming. Nature, 2018, 558, 41-49.	27.8	116
10	Extensive release of methane from Arctic seabed west of Svalbard during summer 2014 does not influence the atmosphere. Geophysical Research Letters, 2016, 43, 4624-4631.	4.0	74
11	Implications of possible interpretations of â€˜greenhouse gas balanceâ€™ in the Paris Agreement. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20160445.	3.4	72
12	Evaluation of the performance of different atmospheric chemical transport models and inter-comparison of nitrogen and sulphur deposition estimates for the UK. Atmospheric Environment, 2015, 119, 131-143.	4.1	61
13	Measurement of the ¹³C isotopic signature of methane emissions from northern European wetlands. Global Biogeochemical Cycles, 2017, 31, 605-623.	4.9	52
14	Lagrangian analysis of low altitude anthropogenic plume processing across the North Atlantic. Atmospheric Chemistry and Physics, 2008, 8, 7737-7754.	4.9	48
15	Further improvement of warming-equivalent emissions calculation. Npj Climate and Atmospheric Science, 2021, 4, .	6.8	44
16	Methane and carbon dioxide fluxes and their regional scalability for the European Arctic wetlands during the MAMM project in summer 2012. Atmospheric Chemistry and Physics, 2014, 14, 13159-13174.	4.9	39
17	Indicate separate contributions of long-lived and short-lived greenhouse gases in emission targets. Npj Climate and Atmospheric Science, 2022, 5, 5.	6.8	36
18	Using <i>Î´</i>¹³C-CH₄ and <i>Î´</i>D-CH₄ to constrain Arctic methane emissions. Atmospheric Chemistry and Physics, 2016, 16, 14891-14908.	4.9	34

#	Article	IF	Citations
19	FaIRv2.0.0: a generalized impulse response model for climate uncertainty and future scenario exploration. Geoscientific Model Development, 2021, 14, 3007-3036.	3.6	34
20	Ensuring that offsets and other internationally transferred mitigation outcomes contribute effectively to limiting global warming. Environmental Research Letters, 2021, 16, 074009.	5.2	33
21	A Lagrangian model of air-mass photochemistry and mixing using a trajectory ensemble: the Cambridge Tropospheric Trajectory model of Chemistry And Transport (CiTTyCAT) version 4.2. Geoscientific Model Development, 2012, 5, 193-221.	3.6	24
22	Measurements of Î´¹³C in CH₄ and using particle dispersion modeling to characterize sources of Arctic methane within an air mass. Journal of Geophysical Research D: Atmospheres, 2016, 121, 14257-14270.	3.3	22
23	A cautionary tale: A study of a methane enhancement over the North Sea. Journal of Geophysical Research D: Atmospheres, 2017, 122, 7630-7645.	3.3	22
24	Methane mole fraction and Î´¹³C above and below the trade wind inversion at Ascension Island in air sampled by aerial robotics. Geophysical Research Letters, 2016, 43, 11,893.	4.0	14
25	Methane and the Paris Agreement temperature goals. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20200456.	3.4	14
26	Large Methane Emission Fluxes Observed From Tropical Wetlands in Zambia. Global Biogeochemical Cycles, 2022, 36, .	4.9	14
27	Night-time measurements of HO_{<i>x</i>} during the RONOCO project and analysis of the sources of HO₂. Atmospheric Chemistry and Physics, 2015, 15, 8179-8200.	4.9	11
28	Sensitivity of tropospheric ozone to chemical kinetic uncertainties in air masses influenced by anthropogenic and biomass burning emissions. Geophysical Research Letters, 2017, 44, 7472-7481.	4.0	11
29	Constraints on oceanic methane emissions west of Svalbard from atmospheric in situ measurements and Lagrangian transport modeling. Journal of Geophysical Research D: Atmospheres, 2016, 121, 14188-14200.	3.3	10
30	Quantifying non-CO2 contributions to remaining carbon budgets. Npj Climate and Atmospheric Science, 2021, 4, .	6.8	10
31	Isoprene hotspots at the Western Coast of Antarctic Peninsula during MASECâ€²16. Polar Science, 2019, 20, 63-74.	1.2	9
32	Comment on â€˜Unintentional unfairness when applying new greenhouse gas emissions metrics at country levelâ€™. Environmental Research Letters, 2021, 16, 068001.	5.2	7
33	Quantification of chemical and physical processes influencing ozone during long-range transport using a trajectory ensemble. Atmospheric Chemistry and Physics, 2012, 12, 7015-7039.	4.9	6
34	Isotopic signatures of methane emissions from tropical fires, agriculture and wetlands: the MOYA and ZWAMPS flights. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20210112.	3.4	6
35	What is the El NiÃ±oâ€“Southern Oscillation?. Weather, 2019, 74, 250-251.	0.7	5
36	Transformations to regenerative food systemsâ€”An outline of the FixOurFood project. Nutrition Bulletin, 2022, 47, 106-114.	1.8	4