

Gregory Frost

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

36
papers

5,444
citations

24
h-index

42
g-index

42
ext. papers

6,378
ext. citations

7
avg, IF

4.73
L-index

#	Paper	IF	Citations
36	Fully coupled online chemistry within the WRF model. <i>Atmospheric Environment</i> , 2005 , 39, 6957-6975	5.3	2162
35	Volatile chemical products emerging as largest petrochemical source of urban organic emissions. <i>Science</i> , 2018 , 359, 760-764	33.3	421
34	Methane emissions estimate from airborne measurements over a western United States natural gas field. <i>Geophysical Research Letters</i> , 2013 , 40, 4393-4397	4.9	345
33	Hydrocarbon emissions characterization in the Colorado Front Range: A pilot study. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		302
32	Effect of petrochemical industrial emissions of reactive alkenes and NO _x on tropospheric ozone formation in Houston, Texas. <i>Journal of Geophysical Research</i> , 2003 , 108,		225
31	Effects of changing power plant NO _x emissions on ozone in the eastern United States: Proof of concept. <i>Journal of Geophysical Research</i> , 2006 , 111,		192
30	A new look at methane and nonmethane hydrocarbon emissions from oil and natural gas operations in the Colorado Denver-Julesburg Basin. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014 , 119, 6836-6852	4.4	191
29	Satellite-observed U.S. power plant NO _x emission reductions and their impact on air quality. <i>Geophysical Research Letters</i> , 2006 , 33,	4.9	191
28	Reduced emissions of CO ₂ , NO _x , and SO ₂ from U.S. power plants owing to switch from coal to natural gas with combined cycle technology. <i>Earth's Future</i> , 2014 , 2, 75-82	7.9	162
27	Quantifying sources of methane using light alkanes in the Los Angeles basin, California. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 4974-4990	4.4	146
26	NO ₂ columns in the western United States observed from space and simulated by a regional chemistry model and their implications for NO _x emissions. <i>Journal of Geophysical Research</i> , 2009 , 114,		131
25	Understanding high wintertime ozone pollution events in an oil- and natural gas-producing region of the western US. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 411-429	6.8	119
24	Top-down estimate of surface flux in the Los Angeles Basin using a mesoscale inverse modeling technique: assessing anthropogenic emissions of CO, NO _x , and CO ₂ and their impacts. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 3661-3677	6.8	119
23	Particle growth in urban and industrial plumes in Texas. <i>Journal of Geophysical Research</i> , 2003 , 108, n/a-n/a		95
22	Airborne and ground-based observations of a weekend effect in ozone, precursors, and oxidation products in the California South Coast Air Basin. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		84
21	Evaluations of NO _x and highly reactive VOC emission inventories in Texas and their implications for ozone plume simulations during the Texas Air Quality Study 2006. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 11361-11386	6.8	70
20	Air quality implications of the Deepwater Horizon oil spill. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 20280-5	11.5	59

19	Top-down estimate of anthropogenic emission inventories and their interannual variability in Houston using a mesoscale inverse modeling technique. <i>Journal of Geophysical Research</i> , 2011 , 116,		58
18	Analysis of long-term observations of NO _x and CO in megacities and application to constraining emissions inventories. <i>Geophysical Research Letters</i> , 2016 , 43, 9920-9930	4.9	55
17	A top-down analysis of emissions from selected Texas power plants during TexAQS 2000 and 2006. <i>Journal of Geophysical Research</i> , 2010 , 115,		51
16	Modeling the weekly cycle of NO _x and CO emissions and their impacts on O ₃ in the Los Angeles-South Coast Air Basin during the CalNex 2010 field campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 1340-1360	4.4	43
15	A new inversion method to calculate emission inventories without a prior at mesoscale: Application to the anthropogenic CO ₂ emission from Houston, Texas. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		40
14	Modeling Ozone in the Eastern U.S. using a Fuel-Based Mobile Source Emissions Inventory. <i>Environmental Science & Technology</i> , 2018 , 52, 7360-7370	10.3	37
13	Top-down estimate of methane emissions in California using a mesoscale inverse modeling technique: The South Coast Air Basin. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 6698-6711	4.4	30
12	Top-down estimate of methane emissions in California using a mesoscale inverse modeling technique: The San Joaquin Valley. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 3686-3699	4.4	22
11	Nitric acid loss rates measured in power plant plumes. <i>Journal of Geophysical Research</i> , 2004 , 109,		20
10	New Directions: GEIA's 2020 vision for better air emissions information. <i>Atmospheric Environment</i> , 2013 , 81, 710-712	5.3	18
9	Tropospheric Ozone Assessment Report. <i>Elementa</i> , 2020 , 8,	3.6	18
8	Inversion Estimates of Lognormally Distributed Methane Emission Rates From the Haynesville-Bossier Oil and Gas Production Region Using Airborne Measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019 , 124, 3520-3531	4.4	11
7	Development of a Fuel-Based Oil and Gas Inventory of Nitrogen Oxides Emissions. <i>Environmental Science & Technology</i> , 2018 , 52, 10175-10185	10.3	9
6	Reflecting on progress since the 2005 NARSTO emissions inventory report. <i>Journal of the Air and Waste Management Association</i> , 2019 , 69, 1023-1048	2.4	3
5	Top-down estimate of surface flux in the Los Angeles Basin using a mesoscale inverse modeling technique: assessing anthropogenic emissions of CO, NO _x and CO ₂ and their impacts		3
4	Understanding high wintertime ozone pollution events in an oil and natural gas producing region of the western US		3
3	Quantifying Methane and Ozone Precursor Emissions from Oil and Gas Production Regions across the Contiguous US. <i>Environmental Science & Technology</i> , 2021 , 55, 9129-9139	10.3	3
2	Impact of high-resolution a priori profiles on satellite-based formaldehyde retrievals. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 7639-7655	6.8	2

1 Assessment of Updated Fuel-Based Emissions Inventories Over the Contiguous United States Using
TROPOMI NO₂ Retrievals. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2021JD035484 4.4 1