Caroline R Nowlan

List of Publications by Year
in descending order

29 papers	1,048 citations	471509 17 h-index	501196 28 g-index
51 all docs	51 docs citations	51 times ranked	1501 citing authors

#	Article	IF	Citations
1	An Inversion Framework for Optimizing Nonâ€Methane VOC Emissions Using Remote Sensing and Airborne Observations in Northeast Asia During the KORUSâ€AQ Field Campaign. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	8
2	Source and variability of formaldehyde (HCHO) at northern high latitudes: an integrated satellite, aircraft, and model study. Atmospheric Chemistry and Physics, 2022, 22, 7163-7178.	4.9	9
3	Can Column Formaldehyde Observations Inform Air Quality Monitoring Strategies for Ozone and Related Photochemical Oxidants?. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	5
4	Radiative transfer acceleration based on the principal component analysis and lookup table of corrections: optimization and application to UV ozone profile retrievals. Atmospheric Measurement Techniques, 2021, 14, 2659-2672.	3.1	3
5	Assessing sub-grid variability within satellite pixels over urban regions using airborne mapping spectrometer measurements. Atmospheric Measurement Techniques, 2021, 14, 4639-4655.	3.1	6
6	Comprehensive evaluations of diurnal NO₂ measurements during DISCOVER-AQ 2011: effects of resolution-dependent representation of NO_{<i>x</i>} emissions. Atmospheric Chemistry and Physics, 2021, 21, 11133-11160.	4.9	7
7	Top-down estimates of anthropogenic VOC emissions in South Korea using formaldehyde vertical column densities from aircraft during the KORUS-AQ campaign. Elementa, 2021, 9, .	3.2	16
8	Unraveling pathways of elevated ozone induced by the 2020 lockdown in Europe by an observationally constrained regional model using TROPOMI. Atmospheric Chemistry and Physics, 2021, 21, 18227-18245.	4.9	25
9	Observing Nitrogen Dioxide Air Pollution Inequality Using High-Spatial-Resolution Remote Sensing Measurements in Houston, Texas. Environmental Science & Technology, 2020, 54, 9882-9895.	10.0	44
10	High-resolution mapping of SO2 using airborne observations from the GeoTASO instrument during the KORUS-AQ field study: PCA-based vertical column retrievals. Remote Sensing of Environment, 2020, 241, 111725.	11.0	10
11	Revisiting the effectiveness of HCHO/NO2 ratios for inferring ozone sensitivity to its precursors using high resolution airborne remote sensing observations in a high ozone episode during the KORUS-AQ campaign. Atmospheric Environment, 2020, 224, 117341.	4.1	65
12	Validation of satellite formaldehyde (HCHO) retrievals using observations from 12 aircraft campaigns. Atmospheric Chemistry and Physics, 2020, 20, 12329-12345.	4.9	21
13	An inversion of NO_{<i>x</i>} and non-methane volatile organic compound (NMVOC) emissions using satellite observations during the KORUS-AQ campaign and implications for surface ozone over East Asia. Atmospheric Chemistry and Physics, 2020, 20, 9837-9854.	4.9	30
14	Evaluating Sentinel-5P TROPOMI tropospheric NO₂ column densities with airborne and Pandora spectrometers near New York City and Long Island Sound. Atmospheric Measurement Techniques, 2020, 13, 6113-6140.	3.1	85
15	Five decades observing Earthâ€™s atmospheric trace gases using ultraviolet and visible backscatter solar radiation from space. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 238, 106478.	2.3	26
16	Explicit Aerosol Correction of OMI Formaldehyde Retrievals. Earth and Space Science, 2019, 6, 2087-2105.	2.6	11
17	Airborne hyperspectral trace gas sensors as testbeds for geostationary air quality missions. , 2019, , .		1
18	First Topâ€Down Estimates of Anthropogenic NO_x Emissions Using Highâ€Resolution Airborne Remote Sensing Observations. Journal of Geophysical Research D: Atmospheres, 2018, 123, 3269-3284.	3.3	21

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19	Nitrogen dioxide and formaldehyde measurements from the GEOstationary Coastal and Air Pollution Events (GEO-CAPE) Airborne Simulator over Houston, Texas. Atmospheric Measurement Techniques, 2018, 11, 5941-5964.	3.1	39
20	The Ozone Monitoring Instrument: overview of 14 years in space. Atmospheric Chemistry and Physics, 2018, 18, 5699-5745.	4.9	259
21	Characterization of the OCO-2 instrument line shape functions using on-orbit solar measurements. Atmospheric Measurement Techniques, 2017, 10, 939-953.	3.1	24
22	Nitrogen dioxide observations from the Geostationary Trace gas and Aerosol Sensor Optimization (GeoTASO) airborne instrument: Retrieval algorithm and measurements during DISCOVER-AQ Texas 2013. Atmospheric Measurement Techniques, 2016, 9, 2647-2668.	3.1	50
23	Global dry deposition of nitrogen dioxide and sulfur dioxide inferred from spaceâ€based measurements. Global Biogeochemical Cycles, 2014, 28, 1025-1043.	4.9	65
24	Characterization and correction of Global Ozone Monitoring Experiment 2 ultraviolet measurements and application to ozone profile retrievals. Journal of Geophysical Research, 2012, 117, .	3.3	55
25	The ACE-MAESTRO instrument on SCISAT: description, performance, and preliminary results. Applied Optics, 2007, 46, 4341.	2.1	79
26	Initial comparison of ozone and NO₂ profiles from ACEâ€MAESTRO with balloon and satellite data. Journal of Geophysical Research, 2007, 112, .	3.3	25
27	Measurements of the - and -bands for determining temperature and pressure profiles from ACEâ€“MAESTRO: Forward model and retrieval algorithm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 108, 371-388.	2.3	29
28	Simultaneous Measurements of Visible (400â˜'700 nm) and Infrared (3.4 Î¼m) NO2Absorption. Journal of Physical Chemistry A, 2006, 110, 12414-12418.	2.5	7
29	Intercomparison of Simultaneously Obtained Infrared (4.8 Î¼m) and Visible (515â˜'715 nm) Ozone Spectra Using ACE-FTS and MAESTRO. Journal of Physical Chemistry A, 2005, 109, 8760-8764.	2.5	9