Laura T Iraci

List of Publications by Year
in descending order

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72	2,426	218677	223800
papers	citations	26 h-index	46 g-index

97	97	97	2707
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Comparisons of the Orbiting Carbon Observatory-2 (OCO-2) <i>X</i>_{CO₂} measurements with TCCON. Atmospheric Measurement Techniques, 2017, 10, 2209-2238.		205
2	Improved retrievals of carbon dioxide from Orbiting Carbon Observatory-2 with the version 8 ACOS algorithm. Atmospheric Measurement Techniques, 2018, 11, 6539-6576.	3.1	188
3	Spaceborne detection of localized carbon dioxide sources. Science, 2017, 358, .	12.6	127
4	The United States' Next Generation of Atmospheric Composition and Coastal Ecosystem Measurements: NASA's Geostationary Coastal and Air Pollution Events (GEO-CAPE) Mission. Bulletin of the American Meteorological Society, 2012, 93, 1547-1566.	3.3	118
5	Fourier transformâ€infrared studies of thin H₂SO₄/H₂O films: Formation, water uptake, and solidâ€liquid phase changes. Journal of Geophysical Research, 1993, 98, 20473-20481.	3.3	96
6	Consistent evaluation of ACOS-GOSAT, BESD-SCIAMACHY, CarbonTracker, and MACC through comparisons to TCCON. Atmospheric Measurement Techniques, 2016, 9, 683-709.	3.1	80
7	Heterogeneous interaction of formaldehyde with cold sulfuric acid: Implications for the upper troposphere and lower stratosphere. Journal of Geophysical Research, 1997, 102, 16099-16107.	3.3	76
8	A scientific algorithm to simultaneously retrieve carbon monoxide and methane from TROPOMI onboard Sentinel-5 Precursor. Atmospheric Measurement Techniques, 2019, 12, 6771-6802.	3.1	71
9	Revisiting the evidence of increasing springtime ozone mixing ratios in the free troposphere over western North America. Geophysical Research Letters, 2015, 42, 8719-8728.	4.0	69
10	Validation of methane and carbon monoxide from Sentinel-5 Precursor using TCCON and NDACC-IRWG stations. Atmospheric Measurement Techniques, 2021, 14, 6249-6304.	3.1	57
11	Title is missing!. Journal of Atmospheric Chemistry, 1999, 33, 321-330.	3.2	56
12	Chemistry of the Cyclopentoxy and Cyclohexoxy Radicals at Subambient Temperatures. Journal of Physical Chemistry A, 2000, 104, 5072-5079.	2.5	56
13	Southern California megacity CO₂, CH₄, and CO flux estimates using ground- and space-based remote sensing and a Lagrangian model. Atmospheric Chemistry and Physics, 2018, 18, 16271-16291.	4.9	56
14	Laboratory studies of the formation of polar stratospheric clouds: Nitric acid condensation on thin sulfuric acid films. Journal of Geophysical Research, 1995, 100, 20969.	3.3	50
15	Urban-focused satellite CO2 observations from the Orbiting Carbon Observatory-3: A first look at the Los Angeles megacity. Remote Sensing of Environment, 2021, 258, 112314.	11.0	48
16	Carbon dioxide retrieval from OCO-2 satellite observations using the RemoTeC algorithm and validation with TCCON measurements. Atmospheric Measurement Techniques, 2018, 11, 3111-3130.	3.1	45
17	Solubility of Methanol in Low-Temperature Aqueous Sulfuric Acid and Implications for Atmospheric Particle Composition. Journal of Physical Chemistry A, 2002, 106, 4054-4060.	2.5	43
18	Bias corrections of GOSAT SWIR XCO₂ and XCH₄ with TCCON data and their evaluation using aircraft measurement data. Atmospheric Measurement Techniques, 2016, 9, 3491-3512.	3.1	40

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19	Growth of nitric acid hydrates on thin sulfuric acid films. Geophysical Research Letters, 1994, 21, 867-870.	4.0	39
20	Water ice cloud formation on Mars is more difficult than presumed: Laboratory studies of ice nucleation on surrogate materials. Icarus, 2010, 210, 985-991.	2.5	37
21	Airborne observations and modeling of springtime stratosphere-to-troposphere transport over California. Atmospheric Chemistry and Physics, 2013, 13, 12481-12494.	4.9	37
22	Methane emissions from aÂCalifornian landfill, determined from airborne remote sensing and in situ measurements. Atmospheric Measurement Techniques, 2017, 10, 3429-3452.	3.1	36
23	Heterogeneous chemistry involving methanol in tropospheric clouds. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	35
24	Assessing the role of alkaline soils on the carbon cycle at a playa site. Environmental Earth Sciences, 2013, 70, 1047-1056.	2.7	31
25	Dissolution of sulfuric acid tetrahydrate at low temperatures and subsequent growth of nitric acid trihydrate. Journal of Geophysical Research, 1998, 103, 8491-8498.	3.3	30
26	Ice condensation on sulfuric acid tetrahydrate: Implications for polar stratospheric ice clouds. Atmospheric Chemistry and Physics, 2003, 3, 987-997.	4.9	29
27	A Comparison of <italic>In Situ</italic> Aircraft Measurements of Carbon Dioxide and Methane to GOSAT Data Measured Over Railroad Valley Playa, Nevada, USA. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 7764-7774.	6.3	27
28	Variation of the infrared spectra of nitric acid hydrates with formation conditions: Impact on PSC identification. Geophysical Research Letters, 1999, 26, 707-710.	4.0	26
29	Improved Constraints on Northern Extratropical CO₂ Fluxes Obtained by Combining Surfaceâ€Based and Spaceâ€Based Atmospheric CO₂ Measurements. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032029.	3.3	26
30	Dissolution, speciation, and reaction of acetaldehyde in cold sulfuric acid. Journal of Geophysical Research, 2004, 109, .	3.3	23
31	Validation of Carbon Trace Gas Profile Retrievals from the NOAA-Unique Combined Atmospheric Processing System for the Cross-Track Infrared Sounder. Remote Sensing, 2020, 12, 3245.	4.0	23
32	Emissions and topographic effects on column CO 2 () variations, with a focus on the Southern California Megacity. Journal of Geophysical Research D: Atmospheres, 2017, 122, 7200-7215.	3.3	22
33	Ensemble-based satellite-derived carbon dioxide and methane column-averaged dry-air mole fraction data sets (2003â€“2018) for carbon and climate applications. Atmospheric Measurement Techniques, 2020, 13, 789-819.	3.1	22
34	Uptake of hypobromous acid (HOBr) by aqueous sulfuric acid solutions: low-temperature solubility and reaction. Atmospheric Chemistry and Physics, 2005, 5, 1577-1587.	4.9	21
35	Evaluation of MOPITT VersionÂ7 joint TIRâ€“NIR X_{CO} retrievals with TCCON. Atmospheric Measurement Techniques, 2019, 12, 5547-5572.	3.1	21
36	Uptake and Dissolution of Gaseous Ethanol in Sulfuric Acidâ€. Journal of Physical Chemistry A, 2006, 110, 6711-6717.	2.5	20

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37	Comparison of XH2O Retrieved from GOSAT Short-Wavelength Infrared Spectra with Observations from the TCCON Network. Remote Sensing, 2016, 8, 414.	4.0	20
38	A New Instrumented Airborne Platform for Atmospheric Research. Bulletin of the American Meteorological Society, 2016, 97, 397-404.	3.3	20
39	The California Baseline Ozone Transport Study (CABOTS). Bulletin of the American Meteorological Society, 2020, 101, E427-E445.	3.3	20
40	Cloud and Sunâ€glint statistics derived from GOES and MODIS observations over the Intraâ€Americas Sea for GEOâ€CAPE mission planning. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1725-1745.	3.3	19
41	Two-Year Comparison of Airborne Measurements of CO₂ and CH₄ With GOSAT at Railroad Valley, Nevada. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 4367-4375.	6.3	17
42	An 11-year record of XCO₂ estimates derived from GOSAT measurements using the NASA ACOS version 9 retrieval algorithm. Earth System Science Data, 2022, 14, 325-360.	9.9	17
43	Intercomparability of X_{CO₂} and X_{CH₄} from the United States TCCON sites. Atmospheric Measurement Techniques, 2017, 10, 1481-1493.	3.1	16
44	Intercomparison of lidar, aircraft, and surface ozone measurements in the San Joaquin Valley during the California Baseline Ozone Transport Study (CABOTS). Atmospheric Measurement Techniques, 2019, 12, 1889-1904.	3.1	16
45	Lower-tropospheric CO₂ from near-infrared ACOS-GOSAT observations. Atmospheric Chemistry and Physics, 2017, 17, 5407-5438.	4.9	15
46	A new non-resonant laser-induced fluorescence instrument for the airborne in situ measurement of formaldehyde. Atmospheric Measurement Techniques, 2017, 10, 4833-4844.	3.1	14
47	Investigating sources of ozone over California using AJAX airborne measurements and models: Assessing the contribution from long-range transport. Atmospheric Environment, 2017, 155, 53-67.	4.1	13
48	Atmospheric characterization through fused mobile airborne and surface in situ surveys: methane emissions quantification from a producing oil field. Atmospheric Measurement Techniques, 2018, 11, 1689-1705.	3.1	13
49	Ozone Production in the Soberanes Smoke Haze: Implications for Air Quality in the San Joaquin Valley During the California Baseline Ozone Transport Study. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031777.	3.3	13
50	Water ice nucleation characteristics of JSC Mars-1 regolith simulant under simulated Martian atmospheric conditions. Journal of Geophysical Research, 2011, 116, .	3.3	12
51	Complex chemical composition of colored surface films formed from reactions of propanal in sulfuric acid at upper troposphere/lower stratosphere aerosol acidities. Atmospheric Chemistry and Physics, 2015, 15, 4225-4239.	4.9	12
52	Characterizing the impacts of vertical transport and photochemical ozone production on an exceedance area. Atmospheric Environment, 2015, 109, 342-350.	4.1	12
53	The acid catalyzed nitration of methanol: formation of methyl nitrate via aerosol chemistry. Journal of Atmospheric Chemistry, 2007, 58, 253-266.	3.2	11
54	Quantification of CO₂ and CH₄ emissions over Sacramento, California, based on divergence theorem using aircraft measurements. Atmospheric Measurement Techniques, 2019, 12, 2949-2966.	3.1	11

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55	Investigating the influence of long-range transport on surface O3 in Nevada, USA, using observations from multiple measurement platforms. Science of the Total Environment, 2015, 530-531, 493-504.	8.0	10
56	Regional and Urban Column CO Trends and Anomalies as Observed by MOPITT Over 16ÂYears. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033967.	3.3	10
57	Investigating seasonal methane emissions in Northern California using airborne measurements and inverse modeling. Journal of Geophysical Research D: Atmospheres, 2016, 121, 13,753.	3.3	9
58	An Assessment of Ground Level and Free Tropospheric Ozone Over California and Nevada. Journal of Geophysical Research D: Atmospheres, 2017, 122, 10,089.	3.3	9
59	Carbon Dioxide and Methane at a Desert Siteâ€"A Case Study at Railroad Valley Playa, Nevada, USA. Atmosphere, 2011, 2, 702-714.	2.3	8
60	Uptake of acetone, acetaldehyde and ethanol in cold sulfuric acid solutions containing organic material: Carbon accretion mechanisms. Atmospheric Environment, 2010, 44, 1145-1151.	4.1	7
61	Analyzing source apportioned methane in northern California during Discover-AQ-CA using airborne measurements and model simulations. Atmospheric Environment, 2014, 99, 248-256.	4.1	7
62	A Multiplatform Inversion Estimation of Statewide and Regional Methane Emissions in California during 2014â€"2016. Environmental Science & Technology, 2019, 53, 9636-9645.	10.0	7
63	Air pollution inputs to the Mojave Desert by fusing surface mobile and airborne in situ and airborne and satellite remote sensing: A case study of interbasin transport with numerical model validation. Atmospheric Environment, 2020, 224, 117184.	4.1	6
64	Terrain Trapped Airflows and Precipitation Variability during an Atmospheric River Event. Journal of Hydrometeorology, 2020, 21, 355-375.	1.9	6
65	The Adaptable 4A Inversion (5AI): description and first <i>X</i>_{CO₂} retrievals from Orbiting Carbon Observatory-2 (OCO-2) observations. Atmospheric Measurement Techniques, 2021, 14, 4689-4706.	3.1	5
66	A Collection of Airborne Measurements and Analyses of Trace Gases Emitted From Multiple Fires in California. Earth and Space Science, 2022, 9, .	2.6	5
67	Chlorine-containing salts as water ice nucleating particles on Mars. Icarus, 2018, 303, 280-287.	2.5	4
68	Investigating the Condensation of Benzene (C₆H₆) in Titanâ€™s South Polar Cloud System with a Combination of Laboratory, Observational, and Modeling Tools. Planetary Science Journal, 2021, 2, 121.	3.6	4
69	Evaluation of Bias Correction Methods for GOSAT SWIR XH2O Using TCCON data. Remote Sensing, 2019, 11, 290.	4.0	2
70	Bias Correction of the Ratio of Total Column CH4 to CO2 Retrieved from GOSAT Spectra. Remote Sensing, 2020, 12, 3155.	4.0	2
71	Solubility of Acetic Acid and Trifluoroacetic Acid in Low-Temperature (207â^'245 K) Sulfuric Acid Solutions: Implications for the Upper Troposphere and Lower Stratosphere. Journal of Physical Chemistry A, 2011, 115, 4388-4396.	2.5	1
72	C6H6 condensation on Titanâ€™s stratospheric aerosols: An integrated laboratory, modeling and experimental approach. Proceedings of the International Astronomical Union, 2019, 15, 189-192.	0.0	0