Melissa Payer Sulprizio

List of Publications by Year
in descending order

45	3,693	159585 30	233421 45
papers	citations	h-index	g-index

45	45	45	4489
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Global mortality from outdoor fine particle pollution generated by fossil fuel combustion: Results from GEOS-Chem. Environmental Research, 2021, 195, 110754.	7.5	391
2	Why do models overestimate surface ozone in the Southeast United States?. Atmospheric Chemistry and Physics, 2016, 16, 13561-13577.	4.9	320
3	Public health impacts of the severe haze in Equatorial Asia in Septemberâ€“October 2015: demonstration of a new framework for informing fire management strategies to reduce downwind smoke exposure. Environmental Research Letters, 2016, 11, 094023.	5.2	249
4	Particulate air pollution from wildfires in the Western US under climate change. Climatic Change, 2016, 138, 655-666.	3.6	219
5	Organic nitrate chemistry and its implications for nitrogen budgets in an isoprene- and monoterpene-rich atmosphere: constraints from aircraft (SEAC⁴RS) and ground-based (SOAS) observations in the Southeast US. Atmospheric Chemistry and Physics, 2016, 16, 5969-5991.	4.9	173
6	Gridded National Inventory of U.S. Methane Emissions. Environmental Science & Technology, 2016, 50, 13123-13133.	10.0	165
7	The role of chlorine in global tropospheric chemistry. Atmospheric Chemistry and Physics, 2019, 19, 3981-4003.	4.9	160
8	Quantifying methane emissions from the largest oil-producing basin in the United States from space. Science Advances, 2020, 6, eaaz5120.	10.3	155
9	Ozone pollution in the North China Plain spreading into the late-winter haze season. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	138
10	Burden of Disease from Rising Coal-Fired Power Plant Emissions in Southeast Asia. Environmental Science & Technology, 2017, 51, 1467-1476.	10.0	122
11	An Ensemble Learning Approach for Estimating High Spatiotemporal Resolution of Ground-Level Ozone in the Contiguous United States. Environmental Science & Technology, 2020, 54, 11037-11047.	10.0	114
12	Global distribution of methane emissions, emission trends, and OH concentrations and trends inferred from an inversion of GOSAT satellite data for 2010â€“2015. Atmospheric Chemistry and Physics, 2019, 19, 7859-7881.	4.9	111
13	Observing atmospheric formaldehyde (HCHO) from space: validation and intercomparison of six retrievals from four satellites (OMI, GOME2A, GOME2B, OMPS) with SEAC⁴RS aircraft observations over the southeast US. Atmospheric Chemistry and Physics, 2016, 16, 13477-13490.	4.9	99
14	Using satellite observations of tropospheric NO₂ columns to infer long-term trends in US NO_{<i>x</i>} emissions:Âthe importance of accounting for the free tropospheric NO₂ background. Atmospheric Chemistry and Physics, 2019, 19, 8863-8878.	4.9	89
15	Who Among the Elderly Is Most Vulnerable to Exposure to and Health Risks of Fine Particulate Matter From Wildfire Smoke?. American Journal of Epidemiology, 2017, 186, 730-735.	3.4	79
16	Global budget of tropospheric ozone: Evaluating recent model advances with satellite (OMI), aircraft (IAGOS), and ozonesonde observations. Atmospheric Environment, 2017, 167, 323-334.	4.1	74
17	Multidecadal trends in aerosol radiative forcing over the Arctic: Contribution of changes in anthropogenic aerosol to Arctic warming since 1980. Journal of Geophysical Research D: Atmospheres, 2017, 122, 3573-3594.	3.3	70
18	Attribution of the accelerating increase in atmospheric methane during 2010â€“2018 by inverse analysis of GOSAT observations. Atmospheric Chemistry and Physics, 2021, 21, 3643-3666.	4.9	68

#	Article	IF	Citations
19	The 2005â€“2016 Trends of Formaldehyde Columns Over China Observed by Satellites: Increasing Anthropogenic Emissions of Volatile Organic Compounds and Decreasing Agricultural Fire Emissions. Geophysical Research Letters, 2019, 46, 4468-4475.	4.0	66
20	Satellite-based survey of extreme methane emissions in the Permian basin. Science Advances, 2021, 7, .	10.3	66
21	Global impact of nitrate photolysis in sea-salt aerosol on NO_{<i>x</i>}, OH, and O₃ in the marine boundary layer. Atmospheric Chemistry and Physics, 2018, 18, 11185-11203.	4.9	62
22	Sensitivity to grid resolution in the ability of a chemical transport model to simulate observed oxidant chemistry under high-isoprene conditions. Atmospheric Chemistry and Physics, 2016, 16, 4369-4378.	4.9	60
23	A global gridded (0.1Â°â€‰Ã—â€‰0.1Â°) inventory of methane emissions from oil, gas, and coal exploitation based on national reports to the United Nations Framework Convention on Climate Change. Earth System Science Data, 2020, 12, 563-575.	9.9	60
24	Global methane budget and trend, 2010â€“2017: complementarity of inverse analyses using in situ (GLOBALVIEWplus CH₄ ObsPack) and satellite (GOSAT) observations. Atmospheric Chemistry and Physics, 2021, 21, 4637-4657.	4.9	55
25	Global distribution of methane emissions: a comparative inverse analysis of observations from the TROPOMI and GOSAT satellite instruments. Atmospheric Chemistry and Physics, 2021, 21, 14159-14175.	4.9	54
26	Unravelling a large methane emission discrepancy in Mexico using satellite observations. Remote Sensing of Environment, 2021, 260, 112461.	11.0	49
27	2010â€“2015 North American methane emissions, sectoral contributions, and trends: a high-resolution inversion of GOSAT observations of atmospheric methane. Atmospheric Chemistry and Physics, 2021, 21, 4339-4356.	4.9	45
28	High-resolution inversion of methane emissions in the Southeast US using SEAC⁴RS aircraft observations of atmospheric methane: anthropogenic and wetland sources. Atmospheric Chemistry and Physics, 2018, 18, 6483-6491.	4.9	38
29	Effect of sea salt aerosol on tropospheric bromine chemistry. Atmospheric Chemistry and Physics, 2019, 19, 6497-6507.	4.9	36
30	Monitoring global tropospheric OH concentrations using satellite observations of atmospheric methane. Atmospheric Chemistry and Physics, 2018, 18, 15959-15973.	4.9	34
31	Future respiratory hospital admissions from wildfire smoke under climate change in the Western US. Environmental Research Letters, 2016, 11, 124018.	5.2	29
32	Simulation of radon-222 with the GEOS-Chem global model: emissions, seasonality, and convective transport. Atmospheric Chemistry and Physics, 2021, 21, 1861-1887.	4.9	25
33	WRF-GC (v1.0): online coupling of WRF (v3.9.1.1) and GEOS-Chem (v12.2.1) for regional atmospheric chemistry modeling â€“ Part 1: Description of the one-way model. Geoscientific Model Development, 2020, 13, 3241-3265.	3.6	25
34	Methane emissions in the United States, Canada, and Mexico: evaluation of national methane emission inventories and 2010â€“2017 sectoral trends by inverse analysis of in situ (GLOBALVIEWplus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142 Atmospheric Chemistry and Physics, 2022, 22, 395-418.	4.9	25
35	Enabling Highâ€Performance Cloud Computing for Earth Science Modeling on Over a Thousand Cores: Application to the GEOSâ€Chem Atmospheric Chemistry Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002064.	3.8	23
36	Harmonized Emissions Component (HEMCO) 3.0 as a versatile emissions component for atmospheric models: application in the GEOS-Chem, NASA GEOS, WRF-GC, CESM2, NOAA GEFS-Aerosol, and NOAA UFS models. Geoscientific Model Development, 2021, 14, 5487-5506.	3.6	23

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37	Updated Global Fuel Exploitation Inventory (GFEI) for methane emissions from the oil, gas, and coal sectors: evaluation with inversions of atmospheric methane observations. Atmospheric Chemistry and Physics, 2022, 22, 3235-3249.	4.9	22
38	Comparative analysis of low-Earth orbit (TROPOMI) and geostationary (GeoCARB, GEO-CAPE) satellite instruments for constraining methane emissions on fine regional scales: application to the Southeast US. Atmospheric Measurement Techniques, 2018, 11, 6379-6388.	3.1	17
39	WRF-GC (v2.0): online two-way coupling of WRF (v3.9.1.1) and GEOS-Chem (v12.7.2) for modeling regional atmospheric chemistryâ€“meteorology interactions. Geoscientific Model Development, 2021, 14, 3741-3768.	3.6	17
40	Grid-independent high-resolution dust emissions (v1.0) for chemical transport models: application to GEOS-Chem (12.5.0). Geoscientific Model Development, 2021, 14, 4249-4260.	3.6	15
41	Enabling Immediate Access to Earth Science Models through Cloud Computing: Application to the GEOS-Chem Model. Bulletin of the American Meteorological Society, 2019, 100, 1943-1960.	3.3	14
42	GCAP 2.0: a global 3-D chemical-transport model framework for past, present, and future climate scenarios. Geoscientific Model Development, 2021, 14, 5789-5823.	3.6	11
43	Estimating 2010â€“2015 anthropogenic and natural methane emissions in Canada using ECCC surface and GOSAT satellite observations. Atmospheric Chemistry and Physics, 2021, 21, 18101-18121.	4.9	11
44	An Onlineâ€Learned Neural Network Chemical Solver for Stable Longâ€Term Global Simulations of Atmospheric Chemistry. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	10
45	Reduced-cost construction of Jacobian matrices for high-resolution inversions of satellite observations of atmospheric composition. Atmospheric Measurement Techniques, 2021, 14, 5521-5534.	3.1	5