Daniel J Jacob

List of Publications by Year
in descending order

174 papers	28,772 citations	4584 88 h-index	7043 159 g-index
178 all docs	178 docs citations	178 times ranked	16271 citing authors

#	Article	IF	Citations
1	Global modeling of tropospheric chemistry with assimilated meteorology: Model description and evaluation. Journal of Geophysical Research, 2001, 106, 23073-23095.	3.3	1,927
2	Mercury as a Global Pollutant: Sources, Pathways, and Effects. Environmental Science & Technology, 2013, 47, 4967-4983.	4.6	1,729
3	Anthropogenic drivers of 2013â€“2017 trends in summer surface ozone in China. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 422-427.	3.3	990
4	Natural and transboundary pollution influences on sulfate-nitrate-ammonium aerosols in the United States: Implications for policy. Journal of Geophysical Research, 2004, 109, .	3.3	791
5	Constraints from210Pb and7Be on wet deposition and transport in a global three-dimensional chemical tracer model driven by assimilated meteorological fields. Journal of Geophysical Research, 2001, 106, 12109-12128.	3.3	637
6	Assessment of methane emissions from the U.S. oil and gas supply chain. Science, 2018, 361, 186-188.	6.0	519
7	Transport and Chemical Evolution over the Pacific (TRACE-P) aircraft mission: Design, execution, and first results. Journal of Geophysical Research, 2003, 108, .	3.3	510
8	A two-pollutant strategy for improving ozone and particulate air quality in China. Nature Geoscience, 2019, 12, 906-910.	5.4	493
9	Sources of carbonaceous aerosols over the United States and implications for natural visibility. Journal of Geophysical Research, 2003, 108, .	3.3	468
10	Global and regional decreases in tropospheric oxidants from photochemical effects of aerosols. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	457
11	Global inventory of nitrogen oxide emissions constrained by space-based observations of NO2columns. Journal of Geophysical Research, 2003, 108, .	3.3	442
12	Fine particulate matter (PM_{2.5}) trends in China, 2013â€“2018: separating contributions from anthropogenic emissions and meteorology. Atmospheric Chemistry and Physics, 2019, 19, 11031-11041.	1.9	442
13	Surface ozone depletion in Arctic spring sustained by bromine reactions on aerosols. Nature, 1992, 359, 522-524.	13.7	433
14	The impact of transpacific transport of mineral dust in the United States. Atmospheric Environment, 2007, 41, 1251-1266.	1.9	426
15	Legacy impacts of allâ€time anthropogenic emissions on the global mercury cycle. Global Biogeochemical Cycles, 2013, 27, 410-421.	1.9	377
16	An improved retrieval of tropospheric nitrogen dioxide from GOME. Journal of Geophysical Research, 2002, 107, ACH 9-1.	3.3	355
17	Background ozone over the United States in summer: Origin, trend, and contribution to pollution episodes. Journal of Geophysical Research, 2002, 107, ACH 11-1.	3.3	353
18	Chemical cycling and deposition of atmospheric mercury: Global constraints from observations. Journal of Geophysical Research, 2007, 112, .	3.3	351

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19	Mapping isoprene emissions over North America using formaldehyde column observations from space. Journal of Geophysical Research, 2003, 108, .	3.3	346
20	Transport pathways for Asian pollution outflow over the Pacific: Interannual and seasonal variations. Journal of Geophysical Research, 2003, 108, .	3.3	331
21	Why do models overestimate surface ozone in the Southeast United States?. Atmospheric Chemistry and Physics, 2016, 16, 13561-13577.	1.9	320
22	Optimized regional and interannual variability of lightning in a global chemical transport model constrained by LIS/OTD satellite data. Journal of Geophysical Research, 2012, 117, .	3.3	310
23	A new mechanism for atmospheric mercury redox chemistry: implications for the global mercury budget. Atmospheric Chemistry and Physics, 2017, 17, 6353-6371.	1.9	296
24	Increases in surface ozone pollution in China from 2013 to 2019: anthropogenic and meteorological influences. Atmospheric Chemistry and Physics, 2020, 20, 11423-11433.	1.9	294
25	Atmospheric budget of acetone. Journal of Geophysical Research, 2002, 107, ACH 5-1-ACH 5-17.	3.3	290
26	A global three-dimensional model of tropospheric sulfate. Journal of Geophysical Research, 1996, 101, 18667-18690.	3.3	284
27	Observed decrease in atmospheric mercury explained by global decline in anthropogenic emissions. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 526-531.	3.3	284
28	Why are there large differences between models in global budgets of tropospheric ozone?. Journal of Geophysical Research, 2007, 112, .	3.3	257
29	Transatlantic transport of pollution and its effects on surface ozone in Europe and North America. Journal of Geophysical Research, 2002, 107, ACH 4-1.	3.3	253
30	Quantifying the seasonal and interannual variability of North American isoprene emissions using satellite observations of the formaldehyde column. Journal of Geophysical Research, 2006, 111, .	3.3	240
31	Spatial distribution of isoprene emissions from North America derived from formaldehyde column measurements by the OMI satellite sensor. Journal of Geophysical Research, 2008, 113, .	3.3	234
32	Space-based formaldehyde measurements as constraints on volatile organic compound emissions in east and south Asia and implications for ozone. Journal of Geophysical Research, 2007, 112, .	3.3	232
33	Global impacts of tropospheric halogens (Cl, Br, I) on oxidants and composition in GEOS-Chem. Atmospheric Chemistry and Physics, 2016, 16, 12239-12271.	1.9	231
34	Satellite observations of atmospheric methane and their value for quantifying methane emissions. Atmospheric Chemistry and Physics, 2016, 16, 14371-14396.	1.9	230
35	Linking ozone pollution and climate change: The case for controlling methane. Geophysical Research Letters, 2002, 29, 25-1-25-4.	1.5	220
36	Satellite observations of formaldehyde over North America from GOME. Geophysical Research Letters, 2000, 27, 3461-3464.	1.5	218

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37	Comparative inverse analysis of satellite (MOPITT) and aircraft (TRACE-P) observations to estimate Asian sources of carbon monoxide. Journal of Geophysical Research, 2004, 109, .	3.3	217
38	Ozone and organic nitrates over the eastern United States: Sensitivity to isoprene chemistry. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,256.	1.2	213
39	Ambiguity in the causes for decadal trends in atmospheric methane and hydroxyl. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5367-5372.	3.3	213
40	Convective outflow of South Asian pollution: A global CTM simulation compared with EOS MLS observations. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	206
41	Transpacific transport of Asian anthropogenic aerosols and its impact on surface air quality in the United States. Journal of Geophysical Research, 2006, 111, .	3.3	203
42	Inventory of boreal fire emissions for North America in 2004: Importance of peat burning and pyroconvective injection. Journal of Geophysical Research, 2007, 112, .	3.3	194
43	Air-sea exchange in the global mercury cycle. Global Biogeochemical Cycles, 2007, 21, .	1.9	193
44	Global budget and radiative forcing of black carbon aerosol: Constraints from poleâ€toâ€pole (HIPPO) observations across the Pacific. Journal of Geophysical Research D: Atmospheres, 2014, 119, 195-206.	1.2	193
45	Effects of 2000â€“2050 global change on ozone air quality in the United States. Journal of Geophysical Research, 2008, 113, .	3.3	186
46	Inverting for emissions of carbon monoxide from Asia using aircraft observations over the western Pacific. Journal of Geophysical Research, 2003, 108, .	3.3	178
47	Global lifetime of elemental mercury against oxidation by atomic bromine in the free troposphere. Geophysical Research Letters, 2006, 33, .	1.5	177
48	Transition metalâ€catalyzed oxidation of atmospheric sulfur: Global implications for the sulfur budget. Journal of Geophysical Research, 2009, 114, .	3.3	176
49	Interpretation of TOMS observations of tropical tropospheric ozone with a global model and in situ observations. Journal of Geophysical Research, 2002, 107, ACH 4-1.	3.3	174
50	Global 3â€D landâ€oceanâ€atmosphere model for mercury: Presentâ€day versus preindustrial cycles and anthropogenic enrichment factors for deposition. Global Biogeochemical Cycles, 2008, 22, .	1.9	174
51	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.	1.9	173
52	Formaldehyde distribution over North America: Implications for satellite retrievals of formaldehyde columns and isoprene emission. Journal of Geophysical Research, 2006, 111, .	3.3	172
53	Export efficiency of black carbon aerosol in continental outflow: Global implications. Journal of Geophysical Research, 2005, 110, .	3.3	171
54	A persistent imbalance in HOxand NOxphotochemistry of the upper troposphere driven by deep tropical convection. Geophysical Research Letters, 1997, 24, 3189-3192.	1.5	165

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55	Intercomparison of SCIAMACHY and OMI tropospheric NO₂ columns: Observing the diurnal evolution of chemistry and emissions from space. Journal of Geophysical Research, 2008, 113, .	3.3	165
56	Gridded National Inventory of U.S. Methane Emissions. Environmental Science & Technology, 2016, 50, 13123-13133.	4.6	165
57	Global budget of ethane and regional constraints on U.S. sources. Journal of Geophysical Research, 2008, 113, .	3.3	164
58	Fast sulfate formation from oxidation of SO2 by NO2 and HONO observed in Beijing haze. Nature Communications, 2020, 11, 2844.	5.8	161
59	Atmospheric hydrogen cyanide (HCN): Biomass burning source, ocean sink?. Geophysical Research Letters, 2000, 27, 357-360.	1.5	159
60	Planning, implementation, and scientific goals of the Studies of Emissions and Atmospheric Composition, Clouds and Climate Coupling by Regional Surveys (SEAC⁴RS) field mission. Journal of Geophysical Research D: Atmospheres, 2016, 121, 4967-5009.	1.2	158
61	North American pollution outflow and the trapping of convectively lifted pollution by upper-level anticyclone. Journal of Geophysical Research, 2005, 110, .	3.3	156
62	Quantifying methane emissions from the largest oil-producing basin in the United States from space. Science Advances, 2020, 6, eaaz5120.	4.7	155
63	Interactions between tropospheric chemistry and aerosols in a unified general circulation model. Journal of Geophysical Research, 2003, 108, AAC 1-1.	3.3	152
64	Seasonal transition from NOx- to hydrocarbon-limited conditions for ozone production over the eastern United States in September. Journal of Geophysical Research, 1995, 100, 9315.	3.3	150
65	Synthesis of satellite (MODIS), aircraft (ICARTT), and surface (IMPROVE, EPAâ€AQS, AERONET) aerosol observations over eastern North America to improve MODIS aerosol retrievals and constrain surface aerosol concentrations and sources. Journal of Geophysical Research, 2010, 115, .	3.3	144
66	Quantifying methane point sources from fine-scale satellite observations of atmospheric methane plumes. Atmospheric Measurement Techniques, 2018, 11, 5673-5686.	1.2	142
67	A record of the atmospheric methane sink from formaldehyde in polar ice cores. Nature, 1991, 349, 603-605.	13.7	140
68	Anthropogenic impacts on global storage and emissions of mercury from terrestrial soils: Insights from a new global model. Journal of Geophysical Research, 2010, 115, .	3.3	140
69	Control of particulate nitrate air pollution in China. Nature Geoscience, 2021, 14, 389-395.	5.4	139
70	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, .	3.3	138
71	Effect of changing NO_{<i>x</i>} lifetime on the seasonality and long-term trends of satellite-observed tropospheric NO₂ columns over China. Atmospheric Chemistry and Physics, 2020, 20, 1483-1495.	1.9	135
72	Improved quantification of Chinese carbon fluxes using CO2/CO correlations in Asian outflow. Journal of Geophysical Research, 2004, 109, .	3.3	131

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73	Formaldehyde (HCHO) As a Hazardous Air Pollutant: Mapping Surface Air Concentrations from Satellite and Inferring Cancer Risks in the United States. Environmental Science & Technology, 2017, 51, 5650-5657.	4.6	131
74	A global three-dimensional model analysis of the atmospheric budgets of HCN and CH3CN: Constraints from aircraft and ground measurements. Journal of Geophysical Research, 2003, 108, .	3.3	126
75	Seasonal and interannual variability of North American isoprene emissions as determined by formaldehyde column measurements from space. Geophysical Research Letters, 2003, 30, n/a-n/a.	1.5	125
76	A tropospheric ozone maximum over the Middle East. Geophysical Research Letters, 2001, 28, 3235-3238.	1.5	122
77	Burden of Disease from Rising Coal-Fired Power Plant Emissions in Southeast Asia. Environmental Science & Technology, 2017, 51, 1467-1476.	4.6	122
78	Sources of tropospheric ozone along the Asian Pacific Rim: An analysis of ozonesonde observations. Journal of Geophysical Research, 2002, 107, ACH 3-1-ACH 3-19.	3.3	121
79	Effects of 2000â€“2050 changes in climate and emissions on global tropospheric ozone and the policyâ€relevant background surface ozone in the United States. Journal of Geophysical Research, 2008, 113, .	3.3	118
80	Atmospheric acetylene and its relationship with CO as an indicator of air mass age. Journal of Geophysical Research, 2007, 112, .	3.3	117
81	A new model mechanism for atmospheric oxidation of isoprene: global effects on oxidants, nitrogen oxides, organic products, and secondary organic aerosol. Atmospheric Chemistry and Physics, 2019, 19, 9613-9640.	1.9	117
82	ATMOSPHERIC CHEMISTRY: Enhanced: The NO2 Flux Conundrum. Science, 2000, 289, 2291-2293.	6.0	111
83	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.	1.9	111
84	A mass budget for mercury and methylmercury in the Arctic Ocean. Global Biogeochemical Cycles, 2016, 30, 560-575.	1.9	110
85	Photoreduction of gaseous oxidized mercury changes global atmospheric mercury speciation, transport and deposition. Nature Communications, 2018, 9, 4796.	5.8	107
86	Intercontinental source attribution of ozone pollution at western U.S. sites using an adjoint method. Geophysical Research Letters, 2009, 36, .	1.5	105
87	Biomass burning emission inventory with daily resolution: Application to aircraft observations of Asian outflow. Journal of Geophysical Research, 2003, 108, .	3.3	100
88	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.	1.9	99
89	Possible heterogeneous chemistry of hydroxymethanesulfonate (HMS) in northern China winter haze. Atmospheric Chemistry and Physics, 2019, 19, 1357-1371.	1.9	97
90	Ozone-CO correlations determined by the TES satellite instrument in continental outflow regions. Geophysical Research Letters, 2006, 33, n/a-n/a.	1.5	92

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91	Increasing background ozone in surface air over the United States. Geophysical Research Letters, 2000, 27, 3465-3468.	1.5	91
92	Active and widespread halogen chemistry in the tropical and subtropical free troposphere. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9281-9286.	3.3	91
93	Multiâ€decadal decline of mercury in the North Atlantic atmosphere explained by changing subsurface seawater concentrations. Geophysical Research Letters, 2012, 39, .	1.5	85
94	Sources and budgets for CO and O3in the northeastern Pacific during the spring of 2001: Results from the PHOBEA-II Experiment. Journal of Geophysical Research, 2003, 108, .	3.3	84
95	Global distribution of solid and aqueous sulfate aerosols: Effect of the hysteresis of particle phase transitions. Journal of Geophysical Research, 2008, 113, .	3.3	84
96	Impact of Asian emissions on observations at Trinidad Head, California, during ITCT 2K2. Journal of Geophysical Research, 2004, 109, .	3.3	83
97	Resolving intercontinental pollution plumes in global models of atmospheric transport. Journal of Geophysical Research, 2010, 115, .	3.3	82
98	Unmask temporal trade-offs in climate policy debates. Science, 2017, 356, 492-493.	6.0	80
99	Annual distributions and sources of Arctic aerosol components, aerosol optical depth, and aerosol absorption. Journal of Geophysical Research D: Atmospheres, 2014, 119, 4107-4124.	1.2	79
100	An intercomparison and evaluation of aircraft-derived and simulated CO from seven chemical transport models during the TRACE-P experiment. Journal of Geophysical Research, 2003, 108, .	3.3	78
101	Application of empirical orthogonal functions to evaluate ozone simulations with regional and global models. Journal of Geophysical Research, 2003, 108, .	3.3	77
102	Potential of observations from the Tropospheric Emission Spectrometer to constrain continental sources of carbon monoxide. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	77
103	Improved algorithm for MODIS satellite retrievals of aerosol optical depths over western North America. Journal of Geophysical Research, 2008, 113, .	3.3	77
104	Export of NOyfrom the North American boundary layer: Reconciling aircraft observations and global model budgets. Journal of Geophysical Research, 2004, 109, .	3.3	75
105	Aqueous production of secondary organic aerosol from fossil-fuel emissions in winter Beijing haze. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	75
106	Global budget of tropospheric ozone: Evaluating recent model advances with satellite (OMI), aircraft (IAGOS), and ozonesonde observations. Atmospheric Environment, 2017, 167, 323-334.	1.9	74
107	Contribution of Hydroxymethane Sulfonate to Ambient Particulate Matter: A Potential Explanation for High Particulate Sulfur During Severe Winter Haze in Beijing. Geophysical Research Letters, 2018, 45, 11,969.	1.5	72
108	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.	1.2	70

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109	Radon-222 as a test of convective transport in a general circulation model. Tellus, Series B: Chemical and Physical Meteorology, 1990, 42, 118-134.	0.8	68
110	Validation of Multiangle Imaging Spectroradiometer (MISR) aerosol optical thickness measurements using Aerosol Robotic Network (AERONET) observations over the contiguous United States. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	68
111	Longâ€term (2005â€“2014) trends in formaldehyde (HCHO) columns across North America as seen by the OMI satellite instrument: Evidence of changing emissions of volatile organic compounds. Geophysical Research Letters, 2017, 44, 7079-7086.	1.5	68
112	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.	1.9	68
113	Eastern Asian emissions of anthropogenic halocarbons deduced from aircraft concentration data. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	67
114	Using CO2:CO correlations to improve inverse analyses of carbon fluxes. Journal of Geophysical Research, 2006, 111, .	3.3	67
115	Sensitivity of sulfate direct climate forcing to the hysteresis of particle phase transitions. Journal of Geophysical Research, 2008, 113, .	3.3	67
116	Interannual variability in tropical tropospheric ozone and OH: The role of lightning. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,468.	1.2	66
117	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.	1.5	66
118	Satellite-based survey of extreme methane emissions in the Permian basin. Science Advances, 2021, 7, .	4.7	66
119	Improved Mechanistic Model of the Atmospheric Redox Chemistry of Mercury. Environmental Science & Technology, 2021, 55, 14445-14456.	4.6	65
120	Chemical nonlinearities in relating intercontinental ozone pollution to anthropogenic emissions. Geophysical Research Letters, 2009, 36, .	1.5	63
121	First directly retrieved global distribution of tropospheric column ozone from GOME: Comparison with the GEOS-CHEM model. Journal of Geophysical Research, 2006, 111, .	3.3	61
122	GEOS-Chem High Performance (GCHP v11-02c): a next-generation implementation of the GEOS-Chem chemical transport model for massively parallel applications. Geoscientific Model Development, 2018, 11, 2941-2953.	1.3	58
123	Potential of next-generation imaging spectrometers to detect and quantify methane point sources from space. Atmospheric Measurement Techniques, 2019, 12, 5655-5668.	1.2	58
124	High-frequency monitoring of anomalous methane point sources with multispectral Sentinel-2 satellite observations. Atmospheric Measurement Techniques, 2021, 14, 2771-2785.	1.2	57
125	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.	1.9	55
126	Concurrent variation in oil and gas methane emissions and oil price during the COVID-19 pandemic. Atmospheric Chemistry and Physics, 2021, 21, 6605-6626.	1.9	55

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127	The H₂SO₄â€HNO₃â€NH₃ system at high humidities and in fogs: 2. Comparison of field data with thermodynamic calculations. Journal of Geophysical Research, 1986, 91, 1089-1096.	3.3	54
128	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.	1.9	54
129	Stratospheric versus pollution influences on ozone at Bermuda: Reconciling past analyses. Journal of Geophysical Research, 2002, 107, ACH 1-1.	3.3	53
130	Detection of a lightning influence on tropical tropospheric ozone. Geophysical Research Letters, 2000, 27, 1639-1642.	1.5	51
131	Photochemistry of oxidized Hg(I) and Hg(II) species suggests missing mercury oxidation in the troposphere. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30949-30956.	3.3	50
132	Errors and improvements in the use of archived meteorological data for chemical transport modeling: an analysis using GEOS-ChemÂv11-01 driven by GEOS-5 meteorology. Geoscientific Model Development, 2018, 11, 305-319.	1.3	49
133	Unravelling a large methane emission discrepancy in Mexico using satellite observations. Remote Sensing of Environment, 2021, 260, 112461.	4.6	49
134	Quantifying Time-Averaged Methane Emissions from Individual Coal Mine Vents with GHGSat-D Satellite Observations. Environmental Science & Technology, 2020, 54, 10246-10253.	4.6	46
135	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.	1.9	45
136	Constraints on Asian and European sources of methane from CH4-C2H6-CO correlations in Asian outflow. Journal of Geophysical Research, 2004, 109, .	3.3	40
137	Detecting high-emitting methane sources in oil/gas fields using satellite observations. Atmospheric Chemistry and Physics, 2018, 18, 16885-16896.	1.9	39
138	Multisatellite Imaging of a Gas Well Blowout Enables Quantification of Total Methane Emissions. Geophysical Research Letters, 2021, 48, e2020GL090864.	1.5	39
139	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.	1.9	38
140	Effects of Anthropogenic Chlorine on PM_{2.5} and Ozone Air Quality in China. Environmental Science & Technology, 2020, 54, 9908-9916.	4.6	38
141	Factors driving mercury variability in the Arctic atmosphere and ocean over the past 30 years. Global Biogeochemical Cycles, 2013, 27, 1226-1235.	1.9	37
142	Insignificant effect of climate change on winter haze pollution in Beijing. Atmospheric Chemistry and Physics, 2018, 18, 17489-17496.	1.9	37
143	Global chemical model analysis of biomass burning and lightning influences over the South Pacific in austral spring. Journal of Geophysical Research, 2002, 107, ACH 11-1.	3.3	36
144	Influence of reduced carbon emissions and oxidation on the distribution of atmospheric CO2: Implications for inversion analyses. Global Biogeochemical Cycles, 2005, 19, n/a-n/a.	1.9	35

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145	Transport of continental air to the subantarctic Indian Ocean. Tellus, Series B: Chemical and Physical Meteorology, 2022, 42, 62.	0.8	34
146	Modeling the OH-Initiated Oxidation of Mercury in the Global Atmosphere without Violating Physical Laws. Journal of Physical Chemistry A, 2020, 124, 444-453.	1.1	33
147	Global modeling of cloud water acidity, precipitation acidity, and acid inputs to ecosystems. Atmospheric Chemistry and Physics, 2020, 20, 12223-12245.	1.9	33
148	Satelliteâ€Observed Changes in Mexico's Offshore Gas Flaring Activity Linked to Oil/Gas Regulations. Geophysical Research Letters, 2019, 46, 1879-1888.	1.5	32
149	The Global Budget of Atmospheric Methanol: New Constraints on Secondary, Oceanic, and Terrestrial Sources. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033439.	1.2	31
150	Satellite Constraints on the Latitudinal Distribution and Temperature Sensitivity of Wetland Methane Emissions. AGU Advances, 2021, 2, e2021AV000408.	2.3	31
151	Comment on â€œThe photochemistry of a remote stratiform cloudâ€•by William L. Chameides. Journal of Geophysical Research, 1985, 90, 5864-5864.	3.3	30
152	Global Importance of Hydroxymethanesulfonate in Ambient Particulate Matter: Implications for Air Quality. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032706.	1.2	28
153	Toward Stable, General Machineâ€Learned Models of the Atmospheric Chemical System. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032759.	1.2	25
154	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 50 382 Atmospheric Chemistry and Physics, 2022, 22, 395-418.	1.9	25
155	The 2019 methane budget and uncertainties at 1Â° resolution and each country through Bayesian integration Of GOSAT total column methane data and a priori inventory estimates. Atmospheric Chemistry and Physics, 2022, 22, 6811-6841.	1.9	24
156	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.	1.3	23
157	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.	1.3	23
158	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.	1.9	22
159	Constraints on the sources of tropospheric ozone from210Pb-7Be-O3correlations. Journal of Geophysical Research, 2004, 109, .	3.3	21
160	A decline in Arctic Ocean mercury suggested by differences in decadal trends of atmospheric mercury between the Arctic and northern midlatitudes. Geophysical Research Letters, 2015, 42, 6076-6083.	1.5	21
161	A gridded inventory of anthropogenic methane emissions from Mexico based on Mexicoâ€™s national inventory of greenhouse gases and compounds. Environmental Research Letters, 2020, 15, 105015.	2.2	19
162	Catalytic role of formaldehyde in particulate matter formation. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	19

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163	Development and evaluation of a new compact mechanism for aromatic oxidation in atmospheric models. Atmospheric Chemistry and Physics, 2021, 21, 18351-18374.	1.9	19
164	Relating geostationary satellite measurements of aerosol optical depth (AOD) over East Asia to fine particulate matter (PM_{2.5}): insights from the KORUS-AQ aircraft campaign and GEOS-Chem model simulations. Atmospheric Chemistry and Physics, 2021, 21, 16775-16791.	1.9	18
165	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.	1.2	17
166	Global Atmospheric Budget of Acetone: Airâ€Sea Exchange and the Contribution to Hydroxyl Radicals. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032553.	1.2	17
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