Vaishali Naik

List of Publications by Year
in descending order

98 papers	16,970 citations	34105 52 h-index	32842 100 g-index
133 all docs	133 docs citations	133 times ranked	15593 citing authors

#	Article	IF	Citations
1	Historical (1850â€“2000) gridded anthropogenic and biomass burning emissions of reactive gases and aerosols: methodology and application. Atmospheric Chemistry and Physics, 2010, 10, 7017-7039.	4.9	2,020
2	Three decades of global methane sources and sinks. Nature Geoscience, 2013, 6, 813-823.	12.9	1,649
3	The Global Methane Budget 2000â€“2017. Earth System Science Data, 2020, 12, 1561-1623.	9.9	1,199
4	The Dynamical Core, Physical Parameterizations, and Basic Simulation Characteristics of the Atmospheric Component AM3 of the GFDL Global Coupled Model CM3. Journal of Climate, 2011, 24, 3484-3519.	3.2	887
5	The global methane budget 2000â€“2012. Earth System Science Data, 2016, 8, 697-751.	9.9	824
6	Pre-industrial to end 21st century projections of tropospheric ozone from the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP). Atmospheric Chemistry and Physics, 2013, 13, 2063-2090.	4.9	570
7	Co-benefits of mitigating global greenhouse gas emissions for future air quality and human health. Nature Climate Change, 2013, 3, 885-889.	18.8	505
8	Global air quality and climate. Chemical Society Reviews, 2012, 41, 6663.	38.1	428
9	Radiative forcing in the ACCMIP historical and future climate simulations. Atmospheric Chemistry and Physics, 2013, 13, 2939-2974.	4.9	395
10	The Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP): overview and description of models, simulations and climate diagnostics. Geoscientific Model Development, 2013, 6, 179-206.	3.6	388
11	Global premature mortality due to anthropogenic outdoor air pollution and the contribution of past climate change. Environmental Research Letters, 2013, 8, 034005.	5.2	381
12	Global distribution and trends of tropospheric ozone: An observation-based review. Elementa, 2014, 2, .	3.2	365
13	Tropospheric ozone changes, radiative forcing and attribution to emissions in the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP). Atmospheric Chemistry and Physics, 2013, 13, 3063-3085.	4.9	361
14	Air Quality and Climate Connections. Journal of the Air and Waste Management Association, 2015, 65, 645-685.	1.9	322
15	Preindustrial to present-day changes in tropospheric hydroxyl radical and methane lifetime from the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP). Atmospheric Chemistry and Physics, 2013, 13, 5277-5298.	4.9	288
16	The GFDL Earth System Model Version 4.1 (GFDLâ€ESM 4.1): Overall Coupled Model Description and Simulation Characteristics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002015.	3.8	277
17	Analysis of present day and future OH and methane lifetime in the ACCMIP simulations. Atmospheric Chemistry and Physics, 2013, 13, 2563-2587.	4.9	257
18	Structure and Performance of GFDL's CM4.0 Climate Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 3691-3727.	3.8	242

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19	Springtime high surface ozone events over the western United States: Quantifying the role of stratospheric intrusions. Journal of Geophysical Research, 2012, 117, .	3.3	219
20	Transport of Asian ozone pollution into surface air over the western United States in spring. Journal of Geophysical Research, 2012, 117, .	3.3	218
21	Tropospheric ozone assessment report: Global ozone metrics for climate change, human health, and crop/ecosystem research. Elementa, 2018, 6, 1.	3.2	196
22	The GFDL Global Atmosphere and Land Model AM4.0/LM4.0: 2. Model Description, Sensitivity Studies, and Tuning Strategies. Journal of Advances in Modeling Earth Systems, 2018, 10, 735-769.	3.8	185
23	Future global mortality from changes in air pollution attributable to climate change. Nature Climate Change, 2017, 7, 647-651.	18.8	177
24	Tropospheric Ozone Assessment Report: Assessment of global-scale model performance for global and regional ozone distributions, variability, and trends. Elementa, 2018, 6, .	3.2	177
25	The roles of aerosol direct and indirect effects in past and future climate change. Journal of Geophysical Research D: Atmospheres, 2013, 118, 4521-4532.	3.3	169
26	The GFDL Global Atmosphere and Land Model AM4.0/LM4.0: 1. Simulation Characteristics With Prescribed SSTs. Journal of Advances in Modeling Earth Systems, 2018, 10, 691-734.	3.8	155
27	Surface ozone-temperature relationships in the eastern US: A monthly climatology for evaluating chemistry-climate models. Atmospheric Environment, 2012, 47, 142-153.	4.1	152
28	Longâ€term changes in lower tropospheric baseline ozone concentrations: Comparing chemistryâ€climate models and observations at northern midlatitudes. Journal of Geophysical Research D: Atmospheres, 2014, 119, 5719-5736.	3.3	149
29	Air pollution and associated human mortality: the role of air pollutant emissions, climate change and methane concentration increases from the preindustrial period to present. Atmospheric Chemistry and Physics, 2013, 13, 1377-1394.	4.9	148
30	A 4-D climatology (1979â€“2009) of the monthly tropospheric aerosol optical depth distribution over the Mediterranean region from a comparative evaluation and blending of remote sensing and model products. Atmospheric Measurement Techniques, 2013, 6, 1287-1314.	3.1	131
31	Characterizing the tropospheric ozone response to methane emission controls and the benefits to climate and air quality. Journal of Geophysical Research, 2008, 113, .	3.3	128
32	Evaluation of preindustrial to present-day black carbon and its albedo forcing from Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP). Atmospheric Chemistry and Physics, 2013, 13, 2607-2634.	4.9	125
33	Comparison of emissions inventories of anthropogenic air pollutants and greenhouse gases in China. Atmospheric Chemistry and Physics, 2017, 17, 6393-6421.	4.9	116
34	Present and potential future contributions of sulfate, black and organic carbon aerosols from China to global air quality, premature mortality and radiative forcing. Atmospheric Environment, 2009, 43, 2814-2822.	4.1	106
35	Historical and future changes in air pollutants from CMIP6 models. Atmospheric Chemistry and Physics, 2020, 20, 14547-14579.	4.9	105
36	Impact of preindustrial to presentâ€day changes in shortâ€lived pollutant emissions on atmospheric composition and climate forcing. Journal of Geophysical Research D: Atmospheres, 2013, 118, 8086-8110.	3.3	103

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37	Contribution of local and remote anthropogenic aerosols to the twentieth century weakening of the South Asian Monsoon. Geophysical Research Letters, 2014, 41, 680-687.	4.0	101
38	The effect of future ambient air pollution on human premature mortality to 2100 using output from the ACCMIP model ensemble. Atmospheric Chemistry and Physics, 2016, 16, 9847-9862.	4.9	101
39	Estimating North American background ozone in U.S. surface air with two independent global models: Variability, uncertainties, and recommendations. Atmospheric Environment, 2014, 96, 284-300.	4.1	98
40	The influence of ozone precursor emissions from four world regions on tropospheric composition and radiative climate forcing. Journal of Geophysical Research, 2012, 117, .	3.3	97
41	SPEAR: The Next Generation GFDL Modeling System for Seasonal to Multidecadal Prediction and Projection. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001895.	3.8	94
42	Net radiative forcing due to changes in regional emissions of tropospheric ozone precursors. Journal of Geophysical Research, 2005, 110, .	3.3	92
43	Tropospheric ozone in CMIP6 simulations. Atmospheric Chemistry and Physics, 2021, 21, 4187-4218.	4.9	89
44	Variability and quasi-decadal changes in the methane budget over the period 2000â€“2012. Atmospheric Chemistry and Physics, 2017, 17, 11135-11161.	4.9	85
45	Radiative forcing and climate response to projected 21st century aerosol decreases. Atmospheric Chemistry and Physics, 2015, 15, 12681-12703.	4.9	80
46	Sensitivity of nitrate aerosols to ammonia emissions and to nitrate chemistry: implications for present and future nitrate optical depth. Atmospheric Chemistry and Physics, 2016, 16, 1459-1477.	4.9	79
47	Quantifying PM2.5-meteorology sensitivities in a global climate model. Atmospheric Environment, 2016, 142, 43-56.	4.1	78
48	Consistent sets of atmospheric lifetimes and radiative forcings on climate for CFC replacements: HCFCs and HFCs. Journal of Geophysical Research, 2000, 105, 6903-6914.	3.3	67
49	Sensitivity of global biogenic isoprenoid emissions to climate variability and atmospheric CO2. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	65
50	Effective radiative forcing from emissions of reactive gases and aerosols â€“ a multi-model comparison. Atmospheric Chemistry and Physics, 2021, 21, 853-874.	4.9	65
51	Evaluation of ACCMIP outgoing longwave radiation from tropospheric ozone using TES satellite observations. Atmospheric Chemistry and Physics, 2013, 13, 4057-4072.	4.9	61
52	Ozone air quality and radiative forcing consequences of changes in ozone precursor emissions. Geophysical Research Letters, 2007, 34, .	4.0	59
53	Changes in the aerosol direct radiative forcing from 2001 to 2015: observational constraints and regional mechanisms. Atmospheric Chemistry and Physics, 2018, 18, 13265-13281.	4.9	57
54	Air quality modeling with WRF-Chem v3.5 in East Asia: sensitivity to emissions and evaluation of simulated air quality. Geoscientific Model Development, 2016, 9, 1201-1218.	3.6	55

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55	Trends in global tropospheric hydroxyl radical and methane lifetime since 1850 from AerChemMIP. Atmospheric Chemistry and Physics, 2020, 20, 12905-12920.	4.9	55
56	Observational constraints on the global atmospheric budget of ethanol. Atmospheric Chemistry and Physics, 2010, 10, 5361-5370.	4.9	54
57	Climate versus emission drivers of methane lifetime against loss by tropospheric OH from 1860â€“2100. Atmospheric Chemistry and Physics, 2012, 12, 12021-12036.	4.9	54
58	Radiative Forcing of Climate: The Historical Evolution of the Radiative Forcing Concept, the Forcing Agents and their Quantification, and Applications. Meteorological Monographs, 2019, 59, 14.1-14.101.	5.0	52
59	Tropospheric Ozone Assessment Report. Elementa, 2020, 8, .	3.2	52
60	The GFDL Global Atmospheric Chemistryâ€Climate Model AM4.1: Model Description and Simulation Characteristics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002032.	3.8	51
61	Use of North American and European air quality networks to evaluate global chemistryâ€“climate modeling of surface ozone. Atmospheric Chemistry and Physics, 2015, 15, 10581-10596.	4.9	50
62	Exploring the relationship between surface PM_{2.5} and meteorology in Northern India. Atmospheric Chemistry and Physics, 2018, 18, 10157-10175.	4.9	50
63	Air quality impacts from the electrification of light-duty passenger vehicles in the United States. Atmospheric Environment, 2019, 208, 95-102.	4.1	48
64	Projecting policyâ€relevant metrics for high summertime ozone pollution events over the eastern United States due to climate and emission changes during the 21st century. Journal of Geophysical Research D: Atmospheres, 2015, 120, 784-800.	3.3	46
65	Effect of climate change on surface ozone over North America, Europe, and East Asia. Geophysical Research Letters, 2016, 43, 3509-3518.	4.0	46
66	On the sensitivity of radiative forcing from biomass burning aerosols and ozone to emission location. Geophysical Research Letters, 2007, 34, .	4.0	45
67	Effect of regional precursor emission controls on long-range ozone transport â€“ Part 2: Steady-state changes in ozone air quality and impacts on human mortality. Atmospheric Chemistry and Physics, 2009, 9, 6095-6107.	4.9	45
68	Twentyâ€first century reversal of the surface ozone seasonal cycle over the northeastern United States. Geophysical Research Letters, 2014, 41, 7343-7350.	4.0	44
69	Climate-driven chemistry and aerosol feedbacks in CMIP6 Earth system models. Atmospheric Chemistry and Physics, 2021, 21, 1105-1126.	4.9	39
70	Sensitivity of tropospheric oxidants to biomass burning emissions: implications for radiative forcing. Geophysical Research Letters, 2013, 40, 1241-1246.	4.0	36
71	Effect of regional precursor emission controls on long-range ozone transport â€“ Part 1: Short-term changes in ozone air quality. Atmospheric Chemistry and Physics, 2009, 9, 6077-6093.	4.9	35
72	Public Health and Climate Benefits and Tradeâ€Offs of U.S. Vehicle Electrification. GeoHealth, 2020, 4, e2020GH000275.	4.0	34

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73	Uncertainties in models of tropospheric ozone based on Monte Carlo analysis: Tropospheric ozone burdens, atmospheric lifetimes and surface distributions. Atmospheric Environment, 2018, 180, 93-102.	4.1	31
74	Gasâ€aerosol partitioning of ammonia in biomass burning plumes: Implications for the interpretation of spaceborne observations of ammonia and the radiative forcing of ammonium nitrate. Geophysical Research Letters, 2017, 44, 8084-8093.	4.0	30
75	Climate and air quality impacts due to mitigation of non-methane near-term climate forcers. Atmospheric Chemistry and Physics, 2020, 20, 9641-9663.	4.9	30
76	Seasonal cycles of O 3 in the marine boundary layer: Observation and model simulation comparisons. Journal of Geophysical Research D: Atmospheres, 2016, 121, 538-557.	3.3	29
77	Influence of Geoengineered Climate on the Terrestrial Biosphere. Environmental Management, 2003, 32, 373-381.	2.7	28
78	Investigation of the global methane budget over 1980â€“2017 using GFDL-AM4.1. Atmospheric Chemistry and Physics, 2020, 20, 805-827.	4.9	28
79	Modulation of hydroxyl variability by ENSO in the absence of external forcing. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8931-8936.	7.1	27
80	Climate change penalty and benefit on surface ozone: a global perspective based on CMIP6 earth system models. Environmental Research Letters, 2022, 17, 024014.	5.2	27
81	Co-benefits of global and regional greenhouse gas mitigation for US air quality in 2050. Atmospheric Chemistry and Physics, 2016, 16, 9533-9548.	4.9	25
82	Global warming potential assessment for CF3OCF = CF2. Journal of Geophysical Research, 2000, 105, 4019-4029.	3.3	24
83	Retrieving the global distribution of the threshold of wind erosion from satellite data and implementing it into the Geophysical Fluid Dynamics Laboratory landâ€“atmosphere model (GFDL) Tj ETQq1 1 0.784314 rgBT /Overlock		
84	Assessing the Influence of COVIDâ€19 on the Shortwave Radiative Fluxes Over the East Asian Marginal Seas. Geophysical Research Letters, 2021, 48, e2020GL091699.	4.0	20
85	Global modeling of hydrogen using GFDL-AM4.1: Sensitivity of soil removal and radiative forcing. International Journal of Hydrogen Energy, 2021, 46, 13446-13460.	7.1	20
86	Rapid and reliable assessment of methane impacts on climate. Atmospheric Chemistry and Physics, 2018, 18, 15555-15568.	4.9	16
87	Reappraisal of the Climate Impacts of Ozoneâ€Depleting Substances. Geophysical Research Letters, 2020, 47, e2020GL088295.	4.0	16
88	Large uncertainties in global hydroxyl projections tied to fate of reactive nitrogen and carbon. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	15
89	Cobenefits of global and domestic greenhouse gas emissions for air quality and human health. Lancet, The, 2017, 389, S23.	13.7	13
90	Net radiative forcing and air quality responses to regional CO emission reductions. Atmospheric Chemistry and Physics, 2013, 13, 5381-5399.	4.9	12

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91	Combining model projections with site-level observations to estimate changes in distributions and seasonality of ozone in surface air over the U.S.A.. Atmospheric Environment, 2018, 193, 302-315.	4.1	9
92	Evaluation of the atmospheric lifetime and radiative forcing on climate for 1,2,2,2-tetrafluoroethyl trifluoromethyl ether (CF3OCHFCF3). Journal of Geophysical Research, 2001, 106, 12615-12618.	3.3	8
93	Hydroxyl Radical (OH) Response to Meteorological Forcing and Implication for the Methane Budget. Geophysical Research Letters, 2021, 48, e2021GL094140.	4.0	7
94	Impact of volcanic aerosols on stratospheric ozone recovery. Journal of Geophysical Research D: Atmospheres, 2017, 122, 9515-9528.	3.3	6
95	Source attribution of black carbon affecting regional air quality, premature mortality and glacial deposition in 2000. Atmospheric Environment, 2019, 206, 144-155.	4.1	5
96	Attribution of Stratospheric and Tropospheric Ozone Changes Between 1850 and 2014 in CMIP6 Models. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	5
97	Corrigendum to "Evaluation of preindustrial to present-day black carbon and its albedo forcing from Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP)" published in Atmos. Chem. Phys., 13, 2607â€“2634, 2013. Atmospheric Chemistry and Physics, 2013, 13, 6553-6554.	4.9	3
98	Corrigendum to "Net radiative forcing and air quality responses to regional CO emission reductions" published in Atmos. Chem. Phys., 13, 5381â€“5399, 2013. Atmospheric Chemistry and Physics, 2013, 13, 5943-5944.	4.9	1