Natalie M Mahowald

List of Publications by Year
in descending order

211 papers	35,345 citations	4146 87 h-index	3915 177 g-index
256 all docs	256 docs citations	256 times ranked	25911 citing authors

#	Article	IF	Citations
1	Global Iron Connections Between Desert Dust, Ocean Biogeochemistry, and Climate. Science, 2005, 308, 67-71.	12.6	2,365
2	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
3	The Community Earth System Model: A Framework for Collaborative Research. Bulletin of the American Meteorological Society, 2013, 94, 1339-1360.	3.3	1,848
4	Processes and patterns of oceanic nutrient limitation. Nature Geoscience, 2013, 6, 701-710.	12.9	1,627
5	Atmospheric global dust cycle and iron inputs to the ocean. Global Biogeochemical Cycles, 2005, 19, n/a-n/a.	4.9	930
6	Global review and synthesis of trends in observed terrestrial near-surface wind speeds: Implications for evaporation. Journal of Hydrology, 2012, 416-417, 182-205.	5.4	906
7	Global dust model intercomparison in AeroCom phase I. Atmospheric Chemistry and Physics, 2011, 11, 7781-7816.	4.9	839
8	Toward a minimal representation of aerosols in climate models: description and evaluation in the Community Atmosphere Model CAM5. Geoscientific Model Development, 2012, 5, 709-739.	3.6	807
9	A global assessment of precipitation chemistry and deposition of sulfur, nitrogen, sea salt, base cations, organic acids, acidity and pH, and phosphorus. Atmospheric Environment, 2014, 93, 3-100.	4.1	650
10	Influence of carbonâ€nitrogen cycle coupling on land model response to CO₂ fertilization and climate variability. Global Biogeochemical Cycles, 2007, 21, .	4.9	624
11	Global distribution of atmospheric phosphorus sources, concentrations and deposition rates, and anthropogenic impacts. Global Biogeochemical Cycles, 2008, 22, .	4.9	617
12	Dust sources and deposition during the last glacial maximum and current climate: A comparison of model results with paleodata from ice cores and marine sediments. Journal of Geophysical Research, 1999, 104, 15895-15916.	3.3	595
13	Atmospheric Iron Deposition: Global Distribution, Variability, and Human Perturbations. Annual Review of Marine Science, 2009, 1, 245-278.	11.6	536
14	Springtime warming and reduced snow cover from carbonaceous particles. Atmospheric Chemistry and Physics, 2009, 9, 2481-2497.	4.9	492
15	The size distribution of desert dust aerosols and its impact on the Earth system. Aeolian Research, 2014, 15, 53-71.	2.7	468
16	Increasing eolian dust deposition in the western United States linked to humanÂactivity. Nature Geoscience, 2008, 1, 189-195.	12.9	439
17	Change in atmospheric mineral aerosols in response to climate: Last glacial period, preindustrial, modern, and doubled carbon dioxide climates. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	427
18	What caused the glacial/interglacial atmosphericpCO2cycles?. Reviews of Geophysics, 2000, 38, 159-189.	23.0	404

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19	Carbon-nitrogen interactions regulate climate-carbon cycle feedbacks: results from an atmosphere-ocean general circulation model. Biogeosciences, 2009, 6, 2099-2120.	3.3	399
20	Radiative forcing in the ACCMIP historical and future climate simulations. Atmospheric Chemistry and Physics, 2013, 13, 2939-2974.	4.9	395
21	Aerosol Indirect Effect on Biogeochemical Cycles and Climate. Science, 2011, 334, 794-796.	12.6	367
22	Impact of desert dust on the biogeochemistry of phosphorus in terrestrial ecosystems. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	362
23	Observed 20th century desert dust variability: impact on climate and biogeochemistry. Atmospheric Chemistry and Physics, 2010, 10, 10875-10893.	4.9	355
24	Toxicity of atmospheric aerosols on marine phytoplankton. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4601-4605.	7.1	353
25	Impact of anthropogenic atmospheric nitrogen and sulfur deposition on ocean acidification and the inorganic carbon system. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14580-14585.	7.1	332
26	Barriers to predicting changes in global terrestrial methane fluxes: analyses using CLM4Me, a methane biogeochemistry model integrated in CESM. Biogeosciences, 2011, 8, 1925-1953.	3.3	325
27	Systematic assessment of terrestrial biogeochemistry in coupled climateâ€“carbon models. Global Change Biology, 2009, 15, 2462-2484.	9.5	324
28	Impact of Desert Dust Radiative Forcing on Sahel Precipitation: Relative Importance of Dust Compared to Sea Surface Temperature Variations, Vegetation Changes, and Greenhouse Gas Warming. Journal of Climate, 2007, 20, 1445-1467.	3.2	290
29	Assessment of the global impact of aerosols on tropospheric oxidants. Journal of Geophysical Research, 2005, 110, .	3.3	289
30	Representations of transport, convection, and the hydrologic cycle in chemical transport models: Implications for the modeling of short-lived and soluble species. Journal of Geophysical Research, 1997, 102, 28127-28138.	3.3	287
31	Satellite-detected fluorescence reveals global physiology of ocean phytoplankton. Biogeosciences, 2009, 6, 779-794.	3.3	280
32	Sustained climate warming drives declining marine biological productivity. Science, 2018, 359, 1139-1143.	12.6	276
33	Combustion iron distribution and deposition. Global Biogeochemical Cycles, 2008, 22, .	4.9	263
34	Sensitivity study of meteorological parameters on mineral aerosol mobilization, transport, and distribution. Journal of Geophysical Research, 2003, 108, .	3.3	255
35	Improved dust representation in the Community Atmosphere Model. Journal of Advances in Modeling Earth Systems, 2014, 6, 541-570.	3.8	253
36	Constraining the atmospheric limb of the plastic cycle. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	232

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37	Global trends in visibility: implications for dust sources. Atmospheric Chemistry and Physics, 2007, 7, 3309-3339.	4.9	222
38	Iron, manganese, and lead at Hawaii Ocean Time-series station ALOHA: Temporal variability and an intermediate water hydrothermal plume. Geochimica Et Cosmochimica Acta, 2005, 69, 933-952.	3.9	217
39	Covariant Glacial-Interglacial Dust Fluxes in the Equatorial Pacific and Antarctica. Science, 2008, 320, 93-96.	12.6	214
40	Climate Sensitivity Estimated from Temperature Reconstructions of the Last Glacial Maximum. Science, 2011, 334, 1385-1388.	12.6	212
41	The changing radiative forcing of fires: global model estimates for past, present and future. Atmospheric Chemistry and Physics, 2012, 12, 10857-10886.	4.9	212
42	Aerosol Impacts on Climate and Biogeochemistry. Annual Review of Environment and Resources, 2011, 36, 45-74.	13.4	207
43	Skill metrics for confronting global upper ocean ecosystem-biogeochemistry models against field and remote sensing data. Journal of Marine Systems, 2009, 76, 95-112.	2.1	204
44	Anthropogenic and natural contributions to regional trends in aerosol optical depth, 1980â€"2006. Journal of Geophysical Research, 2009, 114, .	3.3	200
45	Modeling mineral dust emissions from the Sahara desert using new surface properties and soil database. Journal of Geophysical Research, 2008, 113, .	3.3	197
46	A less dusty future?. Geophysical Research Letters, 2003, 30, n/a-n/a.	4.0	196
47	Fire dynamics during the 20th century simulated by the Community Land Model. Biogeosciences, 2010, 7, 1877-1902.	3.3	194
48	Atmospheric Transport and Deposition of Mineral Dust to the Ocean: Implications for Research Needs. Environmental Science & Technology, 2012, 46, 10390-10404.	10.0	187
49	Estimates of atmospheric-processed soluble iron from observations and a global mineral aerosol model: Biogeochemical implications. Journal of Geophysical Research, 2004, 109, .	3.3	185
50	Atmospheric fluxes of organic N and P to the global ocean. Global Biogeochemical Cycles, 2012, 26, .	4.9	179
51	Impacts of atmospheric nutrient deposition on marine productivity: Roles of nitrogen, phosphorus, and iron. Global Biogeochemical Cycles, 2011, 25, n/a-n/a.	4.9	177
52	Aerosol trace metal leaching and impacts on marine microorganisms. Nature Communications, 2018, 9, 2614.	12.8	176
53	Interannual variability in atmospheric mineral aerosols from a 22-year model simulation and observational data. Journal of Geophysical Research, 2003, 108, .	3.3	171
54	The PMIP4 contribution to CMIP6 â€" Part 2: Two interglacials, scientific objective and experimental design for Holocene and Last Interglacial simulations. Geoscientific Model Development, 2017, 10, 3979-4003.	3.6	171

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55	Mechanisms governing interannual variability in upper-ocean inorganic carbon system and airâ€“sea CO2 fluxes: Physical climate and atmospheric dust. Deep-Sea Research Part II: Topical Studies in Oceanography, 2009, 56, 640-655.	1.4	169
56	The PMIP4 contribution to CMIP6 â€“ Part 1: Overview and over-arching analysis plan. Geoscientific Model Development, 2018, 11, 1033-1057.	3.6	164
57	Global and regional importance of the direct dust-climate feedback. Nature Communications, 2018, 9, 241.	12.8	162
58	Revisiting atmospheric dust export to the Southern Hemisphere ocean: Biogeochemical implications. Global Biogeochemical Cycles, 2008, 22, .	4.9	161
59	A model for studies of tropospheric photochemistry: Description, global distributions, and evaluation. Journal of Geophysical Research, 1999, 104, 26245-26277.	3.3	159
60	Preindustrial-Control and Twentieth-Century Carbon Cycle Experiments with the Earth System Model CESM1(BGC). Journal of Climate, 2014, 27, 8981-9005.	3.2	156
61	Dissolved iron in the vicinity of the Crozet Islands, Southern Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2007, 54, 1999-2019.	1.4	155
62	An improved dust emission model â€“ Part 1: Model description and comparison against measurements. Atmospheric Chemistry and Physics, 2014, 14, 13023-13041.	4.9	150
63	Transport of222radon to the remote troposphere using the Model of Atmospheric Transport and Chemistry and assimilated winds from ECMWF and the National Center for Environmental Prediction/NCAR. Journal of Geophysical Research, 1997, 102, 28139-28151.	3.3	148
64	Radiative forcing of climate by ice-age atmospheric dust. Climate Dynamics, 2003, 20, 193-202.	3.8	142
65	Impacts of biomass burning emissions and land use change on Amazonian atmospheric phosphorus cycling and deposition. Global Biogeochemical Cycles, 2005, 19, n/a-n/a.	4.9	142
66	Impacts of atmospheric nutrient inputs on marine biogeochemistry. Journal of Geophysical Research, 2010, 115, .	3.3	138
67	The PMIP4 contribution to CMIP6 â€“ Part 4: Scientific objectives and experimental design of the PMIP4-CMIP6 Last Glacial Maximum experiments and PMIP4 sensitivity experiments. Geoscientific Model Development, 2017, 10, 4035-4055.	3.6	137
68	Climate response and radiative forcing from mineral aerosols during the last glacial maximum, pre-industrial, current and doubled-carbon dioxide climates. Geophysical Research Letters, 2006, 33, .	4.0	134
69	The impacts of climate, land use, and demography on fires during the 21st century simulated by CLM-CN. Biogeosciences, 2012, 9, 509-525.	3.3	131
70	Modeling dust as component minerals in the Community Atmosphere Model: development of framework and impact on radiative forcing. Atmospheric Chemistry and Physics, 2015, 15, 537-561.	4.9	130
71	Pyrogenic iron: The missing link to high iron solubility in aerosols. Science Advances, 2019, 5, eaau7671.	10.3	128
72	Contribution of the world's main dust source regions to the global cycle of desert dust. Atmospheric Chemistry and Physics, 2021, 21, 8169-8193.	4.9	126

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73	Mineral aerosol and cloud interactions. Geophysical Research Letters, 2003, 30, .	4.0	123
74	Impacts of increasing anthropogenic soluble iron and nitrogen deposition on ocean biogeochemistry. Global Biogeochemical Cycles, 2009, 23, .	4.9	123
75	Intercomparison and analyses of the climatology of the West African Monsoon in the West African Monsoon Modeling and Evaluation project (WAMME) first model intercomparison experiment. Climate Dynamics, 2010, 35, 3-27.	3.8	123
76	Is atmospheric phosphorus pollution altering global alpine Lake stoichiometry?. Global Biogeochemical Cycles, 2015, 29, 1369-1383.	4.9	122
77	Microplastics and nanoplastics in the marine-atmosphere environment. Nature Reviews Earth & Environment, 2022, 3, 393-405.	29.7	121
78	Nitrogen fixation amplifies the ocean biogeochemical response to decadal timescale variations in mineral dust deposition. Tellus, Series B: Chemical and Physical Meteorology, 2006, 58, 560-572.	1.6	114
79	A comparison of scavenging and deposition processes in global models: results from the WCRP Cambridge Workshop of 1995. Tellus, Series B: Chemical and Physical Meteorology, 2000, 52, 1025-1056.	1.6	113
80	The significance of the episodic nature of atmospheric deposition to Low Nutrient Low Chlorophyll regions. Global Biogeochemical Cycles, 2014, 28, 1179-1198.	4.9	106
81	Black carbon radiative effects highly sensitive to emitted particle size when resolving mixing-state diversity. Nature Communications, 2018, 9, 3446.	12.8	106
82	Twelve thousand years of dust: the Holocene global dust cycle constrained by natural archives. Climate of the Past, 2015, 11, 869-903.	3.4	104
83	Aerosol Deposition Impacts on Land and Ocean Carbon Cycles. Current Climate Change Reports, 2017, 3, 16-31.	8.6	103
84	The Community Earth System Model: A Framework for Collaborative Research. Bulletin of the American Meteorological Society, 0, , 130204122247009.	3.3	103
85	Glacially sourced dust as a potentially significant source of ice nucleating particles. Nature Geoscience, 2019, 12, 253-258.	12.9	101
86	African biomass burning is a substantial source of phosphorus deposition to the Amazon, Tropical Atlantic Ocean, and Southern Ocean. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16216-16221.	7.1	100
87	Estimation of iron solubility from observations and a global aerosol model. Journal of Geophysical Research, 2005, 110, .	3.3	99
88	Understanding the 30-year Barbados desert dust record. Journal of Geophysical Research, 2002, 107, AAC 7-1-AAC 7-16.	3.3	97
89	Ephemeral lakes and desert dust sources. Geophysical Research Letters, 2003, 30, .	4.0	96
90	Anthropocene changes in desert area: Sensitivity to climate model predictions. Geophysical Research Letters, 2007, 34, .	4.0	96

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91	Projections of leaf area index in earth system models. Earth System Dynamics, 2016, 7, 211-229.	7.1	96
92	The Role of Easterly Waves on African Desert Dust Transport. Journal of Climate, 2003, 16, 3617-3628.	3.2	91
93	Dust emission response to climate in southern Africa. Journal of Geophysical Research, 2007, 112, .	3.3	91
94	Comparing modeled and observed changes in mineral dust transport and deposition to Antarctica between the Last Glacial Maximum and current climates. Climate Dynamics, 2012, 38, 1731-1755.	3.8	86
95	An improved dust emission model â€“ Part 2: Evaluation in the Community Earth System Model, with implications for the use of dust source functions. Atmospheric Chemistry and Physics, 2014, 14, 13043-13061.	4.9	86
96	Anthropogenic combustion iron as a complex climate forcer. Nature Communications, 2018, 9, 1593.	12.8	86
97	Effects of African dust deposition on phytoplankton in the western tropical Atlantic Ocean off Barbados. Global Biogeochemical Cycles, 2016, 30, 716-734.	4.9	85
98	Applying the adjoint method for biogeochemical modeling: Export of participate organic matter in the world ocean. Geophysical Monograph Series, 2000, , 107-124.	0.1	83
99	Sensitivity of TOMS aerosol index to boundary layer height: Implications for detection of mineral aerosol sources. Geophysical Research Letters, 2004, 31, .	4.0	81
100	Estimate of changes in agricultural terrestrial nitrogen pathways and ammonia emissions from 1850 to present in the Community Earth System Model. Biogeosciences, 2016, 13, 3397-3426.	3.3	79
101	A comparison of scavenging and deposition processes in global models: results from the WCRP Cambridge Workshop of 1995. Tellus, Series B: Chemical and Physical Meteorology, 2022, 52, 1025.	1.6	78
102	Sea-salt aerosol response to climate change: Last Glacial Maximum, preindustrial, and doubled carbon dioxide climates. Journal of Geophysical Research, 2006, 111, .	3.3	78
103	Paleodust variability since the Last Glacial Maximum and implications for iron inputs to the ocean. Geophysical Research Letters, 2016, 43, 3944-3954.	4.0	72
104	Tracing and constraining anthropogenic aerosol iron fluxes to the North Atlantic Ocean using iron isotopes. Nature Communications, 2019, 10, 2628.	12.8	71
105	Contribution of ocean, fossil fuel, land biosphere, and biomass burning carbon fluxes to seasonal and interannual variability in atmospheric CO₂. Journal of Geophysical Research, 2008, 113, .	3.3	70
106	The role of mineral-dust aerosols in polar temperature amplification. Nature Climate Change, 2013, 3, 487-491.	18.8	70
107	Sensitivity of wetland methane emissions to model assumptions: application and model testing against site observations. Biogeosciences, 2012, 9, 2793-2819.	3.3	68
108	Potential climate forcing of land use and land cover change. Atmospheric Chemistry and Physics, 2014, 14, 12701-12724.	4.9	66

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109	Potentially bioavailable iron delivery by iceberg-hosted sediments and atmospheric dust to the polar oceans. Biogeosciences, 2016, 13, 3887-3900.	3.3	65
110	Improved representation of the global dust cycle using observational constraints on dust properties and abundance. Atmospheric Chemistry and Physics, 2021, 21, 8127-8167.	4.9	65
111	Atmospheric deposition and surface stratification as controls of contrasting chlorophyll abundance in the North Indian Ocean. Journal of Geophysical Research, 2007, 112, .	3.3	64
112	Multicentury changes in ocean and land contributions to the climateâ€carbon feedback. Global Biogeochemical Cycles, 2015, 29, 744-759.	4.9	63
113	Reviews and syntheses: the GESAMP atmospheric iron deposition model intercomparison study. Biogeosciences, 2018, 15, 6659-6684.	3.3	63
114	Cumulus parameterizations in chemical transport models. Journal of Geophysical Research, 1995, 100, 26173.	3.3	62
115	Impact of Changes to the Atmospheric Soluble Iron Deposition Flux on Ocean Biogeochemical Cycles in the Anthropocene. Global Biogeochemical Cycles, 2020, 34, e2019GB006448.	4.9	62
116	Characteristics of Atmospheric Transport Using Three Numerical Formulations for Atmospheric Dynamics in a Single GCM Framework. Journal of Climate, 2006, 19, 2243-2266.	3.2	61
117	Evaluation of global simulations of aerosol particle and cloud condensation nuclei number, with implications for cloud droplet formation. Atmospheric Chemistry and Physics, 2019, 19, 8591-8617.	4.9	60
118	Stratospheric transport in a three-dimensional isentropic coordinate model. Journal of Geophysical Research, 2002, 107, ACH 3-1.	3.3	57
119	Observational evidence of African desert dust intensification of easterly waves. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	57
120	Interannual and seasonal variability in atmospheric N₂O. Global Biogeochemical Cycles, 2007, 21, .	4.9	56
121	Model insight into glacialâ€“interglacial paleodust records. Quaternary Science Reviews, 2011, 30, 832-854.	3.0	56
122	Equatorial upwelling enhances nitrogen fixation in the Atlantic Ocean. Geophysical Research Letters, 2013, 40, 1766-1771.	4.0	55
123	Tracing dust input to the global ocean using thorium isotopes in marine sediments: ThoroMap. Global Biogeochemical Cycles, 2016, 30, 1526-1541.	4.9	55
124	Deducing CCl3F emissions using an inverse method and chemical transport models with assimilated winds. Journal of Geophysical Research, 1997, 102, 28153-28168.	3.3	54
125	Maintenance of Lower Tropospheric Temperature Inversion in the Saharan Air Layer by Dust and Dry Anomaly. Journal of Climate, 2009, 22, 5149-5162.	3.2	54
126	The fate of phosphorus fertilizer in Amazon soya bean fields. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120154.	4.0	54

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127	Shape and size constraints on dust optical properties from the Dome C ice core, Antarctica. Scientific Reports, 2016, 6, 28162.	3.3	54
128	Major Impact of Dust Deposition on the Productivity of the Arabian Sea. Geophysical Research Letters, 2019, 46, 6736-6744.	4.0	53
129	Comment on â€œRelative importance of climate and land use in determining present and future global soil dust emissionâ€•by I. Tegen et al.. Geophysical Research Letters, 2004, 31, .	4.0	52
130	Atlantic Southern Ocean productivity: Fertilization from above or below?. Global Biogeochemical Cycles, 2007, 21, n/a-n/a.	4.9	52
131	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
132	Ocean temperature forcing by aerosols across the Atlantic tropical cyclone development region. Geochemistry, Geophysics, Geosystems, 2008, 9, .	2.5	51
133	Modeling the global emission, transport and deposition of trace elements associated with mineral dust. Biogeosciences, 2015, 12, 5771-5792.	3.3	49
134	Atmospheric Carbon Dioxide Variability in the Community Earth System Model: Evaluation and Transient Dynamics during the Twentieth and Twenty-First Centuries. Journal of Climate, 2013, 26, 4447-4475.	3.2	48
135	Earth, Wind, Fire, and Pollution: Aerosol Nutrient Sources and Impacts on Ocean Biogeochemistry. Annual Review of Marine Science, 2022, 14, 303-330.	11.6	48
136	Desert dust and anthropogenic aerosol interactions in the Community Climate System Model coupled-carbon-climate model. Biogeosciences, 2011, 8, 387-414.	3.3	47
137	Climate change impacts the spread potential of wheat stem rust, a significant crop disease. Environmental Research Letters, 2019, 14, 124053.	5.2	47
138	Quantifying the range of the dust direct radiative effect due to source mineralogy uncertainty. Atmospheric Chemistry and Physics, 2021, 21, 3973-4005.	4.9	47
139	Biogeochemical signatures of nitrogen fixation in the eastern North Atlantic. Geophysical Research Letters, 2003, 30, .	4.0	46
140	Interactions between land use change and carbon cycle feedbacks. Global Biogeochemical Cycles, 2017, 31, 96-113.	4.9	46
141	Simulated variations of eolian dust from inner Asian deserts at the mid-Pliocene, last glacial maximum, and present day: contributions from the regional tectonic uplift and global climate change. Climate Dynamics, 2011, 37, 2289-2301.	3.8	45
142	Climate-driven oscillation of phosphorus and iron limitation in the North Pacific Subtropical Gyre. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12720-12728.	7.1	44
143	Coupling between Land Ecosystems and the Atmospheric Hydrologic Cycle through Biogenic Aerosol Pathways. Bulletin of the American Meteorological Society, 2005, 86, 1738-1742.	3.3	43
144	Impacts of anthropogenic SO_x, NO_xand NH₃on acidification of coastal waters and shipping lanes. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	43

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145	Parameterizationâ€based uncertainty in future lightning flash density. Geophysical Research Letters, 2017, 44, 2893-2901.	4.0	43
146	Development of a global aerosol model using a twoâ€dimensional sectional method: 2. Evaluation and sensitivity simulations. Journal of Advances in Modeling Earth Systems, 2017, 9, 1887-1920.	3.8	43
147	Simulation of absorbing aerosol indices for African dust. Journal of Geophysical Research, 2005, 110, .	3.3	42
148	Contributions of developed and developing countries to global climate forcing and surface temperature change. Environmental Research Letters, 2014, 9, 074008.	5.2	42
149	Atmospheric processing of iron in mineral and combustion aerosols: development of an intermediate-complexity mechanism suitable for Earth system models. Atmospheric Chemistry and Physics, 2018, 18, 14175-14196.	4.9	41
150	A numerical study of the climate response to lowered Mediterranean Sea level during the Messinian Salinity Crisis. Palaeogeography, Palaeoclimatology, Palaeoecology, 2009, 279, 41-59.	2.3	40
151	West African monsoon decadal variability and surface-related forcings: second West African Monsoon Modeling and Evaluation Project Experiment (WAMME II). Climate Dynamics, 2016, 47, 3517-3545.	3.8	39
152	Improved methodologies for Earth system modelling of atmospheric soluble iron and observation comparisons using the Mechanism of Intermediate complexity for Modelling Iron (MIMI v1.0). Geoscientific Model Development, 2019, 12, 3835-3862.	3.6	39
153	Changing atmospheric acidity as a modulator of nutrient deposition and ocean biogeochemistry. Science Advances, 2021, 7, .	10.3	39
154	Northâ€South asymmetry in the modeled phytoplankton community response to climate change over the 21st century. Global Biogeochemical Cycles, 2013, 27, 1274-1290.	4.9	39
155	Particulate absorption of solar radiation: anthropogenic aerosols vs. dust. Atmospheric Chemistry and Physics, 2009, 9, 3935-3945.	4.9	38
156	A model-based evaluation of tropical climate in Pangaea during the late Palaeozoic icehouse. Palaeogeography, Palaeoclimatology, Palaeoecology, 2015, 425, 109-127.	2.3	38
157	The sensitivity of carbon turnover in the Community Land Model to modified assumptions about soil processes. Earth System Dynamics, 2014, 5, 211-221.	7.1	36
158	Measurement equation for trace chemicals in fluids and solution of its inverse. Geophysical Monograph Series, 2000, , 3-18.	0.1	35
159	Temporal variability of dust mobilization and concentration in source regions. Journal of Geophysical Research, 2004, 109, .	3.3	35
160	Global tracer modeling during SOLVE: High-latitude descent and mixing. Journal of Geophysical Research, 2002, 107, SOL 52-1-SOL 52-14.	3.3	34
161	Direct measurements of atmospheric iron, cobalt, and aluminumâ€derived dust deposition at Kerguelen Islands. Global Biogeochemical Cycles, 2012, 26, .	4.9	34
162	A Mineralogyâ€Based Anthropogenic Combustionâ€Iron Emission Inventory. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032114.	3.3	32

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163	Recent (1980 to 2015) Trends and Variability in Dailyâ€toâ€Interannual Soluble Iron Deposition from Dust, Fire, and Anthropogenic Sources. Geophysical Research Letters, 2020, 47, e2020GL089688.	4.0	31
164	Longâ€term variability in Saharan dust transport and its link to North Atlantic sea surface temperature. Geophysical Research Letters, 2008, 35, .	4.0	30
165	Paleodust Insights into Dust Impacts on Climate. Journal of Climate, 2019, 32, 7897-7913.	3.2	29
166	Oceanâ€“Atmosphere Interactions of Particles. Springer Earth System Sciences, 2014, , 171-246.	0.2	29
167	Impacts of Aerosol Dry Deposition on Black Carbon Spatial Distributions and Radiative Effects in the Community Atmosphere Model CAM5. Journal of Advances in Modeling Earth Systems, 2018, 10, 1150-1171.	3.8	28
168	Dust transport from nonâ€East Asian sources to the North Pacific. Geophysical Research Letters, 2012, 39, .	4.0	27
169	CH₄ parameter estimation in CLM4.5bgc using surrogate global optimization. Geoscientific Model Development, 2015, 8, 3285-3310.	3.6	26
170	Aerosol-Climate Interactions During the Last Glacial Maximum. Current Climate Change Reports, 2018, 4, 99-114.	8.6	24
171	Interannual variability in hindcasts of atmospheric chemistry: the role of meteorology. Atmospheric Chemistry and Physics, 2009, 9, 5261-5280.	4.9	23
172	A paleogeographic approach to aerosol prescription in simulations of deep time climate. Journal of Advances in Modeling Earth Systems, 2012, 4, .	3.8	23
173	Are the impacts of land use on warming underestimated in climate policy?. Environmental Research Letters, 2017, 12, 094016.	5.2	23
174	Attribution of changes in global wetland methane emissions from pre-industrial to present using CLM4.5-BGC. Environmental Research Letters, 2016, 11, 034020.	5.2	21
175	Tropical Rains Controlling Deposition of Saharan Dust Across the North Atlantic Ocean. Geophysical Research Letters, 2020, 47, e2019GL086867.	4.0	21
176	Seasonal and interannual variability in wetland methane emissions simulated by CLM4Me' and CAM-chem and comparisons to observations of concentrations. Biogeosciences, 2015, 12, 4029-4049.	3.3	20
177	Paleonutrient data analysis of the glacial Atlantic using an adjoint ocean general circulation model. Geophysical Monograph Series, 2000, , 171-183.	0.1	19
178	Impact of variable air-sea O₂ and CO₂ fluxes on atmospheric potential oxygen (APO) and land-ocean carbon sink partitioning. Biogeosciences, 2008, 5, 875-889.	3.3	19
179	The EMIT mission information yield for mineral dust radiative forcing. Remote Sensing of Environment, 2021, 258, 112380.	11.0	19
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