

Natalie M Mahowald

List of Publications by Citations

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236
papers

27,888
citations

82
h-index

165
g-index

256
ext. papers

31,746
ext. citations

7.6
avg. IF

6.77
L-index

#	Paper	IF	Citations
236	Global iron connections between desert dust, ocean biogeochemistry, and climate. <i>Science</i> , 2005 , 308, 67-71	33.3	1996
235	Historical (1850-2000) gridded anthropogenic and biomass burning emissions of reactive gases and aerosols: methodology and application. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 7017-7039	6.8	1724
234	The Community Earth System Model: A Framework for Collaborative Research. <i>Bulletin of the American Meteorological Society</i> , 2013 , 94, 1339-1360	6.1	1412
233	Processes and patterns of oceanic nutrient limitation. <i>Nature Geoscience</i> , 2013 , 6, 701-710	18.3	1113
232	Atmospheric global dust cycle and iron inputs to the ocean. <i>Global Biogeochemical Cycles</i> , 2005 , 19, n/a-n/a	7.9	777
231	Global review and synthesis of trends in observed terrestrial near-surface wind speeds: Implications for evaporation. <i>Journal of Hydrology</i> , 2012 , 416-417, 182-205	6	730
230	Global dust model intercomparison in AeroCom phase I. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 7781-7816	6.8	662
229	Toward a minimal representation of aerosols in climate models: description and evaluation in the Community Atmosphere Model CAM5. <i>Geoscientific Model Development</i> , 2012 , 5, 709-739	6.3	648
228	Influence of carbon-nitrogen cycle coupling on land model response to CO ₂ fertilization and climate variability. <i>Global Biogeochemical Cycles</i> , 2007 , 21, n/a-n/a	5.9	556
227	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. <i>Journal of Geophysical Research</i> , 1999 , 104, 15895-15916		513
226	Global distribution of atmospheric phosphorus sources, concentrations and deposition rates, and anthropogenic impacts. <i>Global Biogeochemical Cycles</i> , 2008 , 22, n/a-n/a	5.9	504
225	A global assessment of precipitation chemistry and deposition of sulfur, nitrogen, sea salt, base cations, organic acids, acidity and pH, and phosphorus. <i>Atmospheric Environment</i> , 2014 , 93, 3-100	5.3	490
224	Atmospheric iron deposition: global distribution, variability, and human perturbations. <i>Annual Review of Marine Science</i> , 2009 , 1, 245-78	15.4	461
223	Springtime warming and reduced snow cover from carbonaceous particles. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 2481-2497	6.8	417
222	Increasing eolian dust deposition in the western United States linked to human activity. <i>Nature Geoscience</i> , 2008 , 1, 189-195	18.3	376
221	Carbon-nitrogen interactions regulate climate-carbon cycle feedbacks: results from an atmosphere-ocean general circulation model. <i>Biogeosciences</i> , 2009 , 6, 2099-2120	4.6	366
220	What caused the glacial/interglacial atmospheric pCO ₂ cycles?. <i>Reviews of Geophysics</i> , 2000 , 38, 159-189	23.1	364

219	Change in atmospheric mineral aerosols in response to climate: Last glacial period, preindustrial, modern, and doubled carbon dioxide climates. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a		325
218	Radiative forcing in the ACCMIP historical and future climate simulations. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 2939-2974	6.8	324
217	The size distribution of desert dust aerosols and its impact on the Earth system. <i>Aeolian Research</i> , 2014 , 15, 53-71	3.9	323
216	Systematic assessment of terrestrial biogeochemistry in coupled climate-carbon models. <i>Global Change Biology</i> , 2009 , 15, 2462-2484	11.4	299
215	Aerosol indirect effect on biogeochemical cycles and climate. <i>Science</i> , 2011 , 334, 794-6	33.3	295
214	Impact of desert dust on the biogeochemistry of phosphorus in terrestrial ecosystems. <i>Global Biogeochemical Cycles</i> , 2004 , 18, n/a-n/a	5.9	295
213	Observed 20th century desert dust variability: impact on climate and biogeochemistry. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 10875-10893	6.8	286
212	Impact of anthropogenic atmospheric nitrogen and sulfur deposition on ocean acidification and the inorganic carbon system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 14580-5	11.5	280
211	Barriers to predicting changes in global terrestrial methane fluxes: analyses using CLM4Me, a methane biogeochemistry model integrated in CESM. <i>Biogeosciences</i> , 2011 , 8, 1925-1953	4.6	271
210	Toxicity of atmospheric aerosols on marine phytoplankton. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 4601-5	11.5	263
209	Representations of transport, convection, and the hydrologic cycle in chemical transport models: Implications for the modeling of short-lived and soluble species. <i>Journal of Geophysical Research</i> , 1997 , 102, 28127-28138		258
208	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. <i>Journal of Climate</i> , 2007 , 20, 1445-1467	4.4	252
207	Assessment of the global impact of aerosols on tropospheric oxidants. <i>Journal of Geophysical Research</i> , 2005 , 110,		252
206	Sensitivity study of meteorological parameters on mineral aerosol mobilization, transport, and distribution. <i>Journal of Geophysical Research</i> , 2003 , 108,		227
205	Combustion iron distribution and deposition. <i>Global Biogeochemical Cycles</i> , 2008 , 22, n/a-n/a	5.9	225
204	Satellite-detected fluorescence reveals global physiology of ocean phytoplankton. <i>Biogeosciences</i> , 2009 , 6, 779-794	4.6	204
203	Covariant glacial-interglacial dust fluxes in the equatorial Pacific and Antarctica. <i>Science</i> , 2008 , 320, 93-633.3		188
202	Iron, manganese, and lead at Hawaii Ocean Time-series station ALOHA: Temporal variability and an intermediate water hydrothermal plume. <i>Geochimica Et Cosmochimica Acta</i> , 2005 , 69, 933-952	5.5	184

201	Improved dust representation in the Community Atmosphere Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2014 , 6, 541-570	7.1	181
200	Global trends in visibility: implications for dust sources. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 3309-3339	3.3	180
199	Climate sensitivity estimated from temperature reconstructions of the Last Glacial Maximum. <i>Science</i> , 2011 , 334, 1385-8	33.3	178
198	Skill metrics for confronting global upper ocean ecosystem-biogeochemistry models against field and remote sensing data. <i>Journal of Marine Systems</i> , 2009 , 76, 95-112	2.7	177
197	Sustained climate warming drives declining marine biological productivity. <i>Science</i> , 2018 , 359, 1139-1143	33.3	176
196	Anthropogenic and natural contributions to regional trends in aerosol optical depth, 1980-2006. <i>Journal of Geophysical Research</i> , 2009 , 114,		172
195	Estimates of atmospheric-processed soluble iron from observations and a global mineral aerosol model: Biogeochemical implications. <i>Journal of Geophysical Research</i> , 2004 , 109,		168
194	Fire dynamics during the 20th century simulated by the Community Land Model. <i>Biogeosciences</i> , 2010 , 7, 1877-1902	4.6	163
193	Modeling mineral dust emissions from the Sahara desert using new surface properties and soil database. <i>Journal of Geophysical Research</i> , 2008 , 113,		163
192	A less dusty future?. <i>Geophysical Research Letters</i> , 2003 , 30, n/a-n/a	4.9	161
191	Aerosol Impacts on Climate and Biogeochemistry. <i>Annual Review of Environment and Resources</i> , 2011 , 36, 45-74	17.2	157
190	Interannual variability in atmospheric mineral aerosols from a 22-year model simulation and observational data. <i>Journal of Geophysical Research</i> , 2003 , 108,		157
189	The changing radiative forcing of fires: global model estimates for past, present and future. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 10857-10886	6.8	153
188	Atmospheric fluxes of organic N and P to the global ocean. <i>Global Biogeochemical Cycles</i> , 2012 , 26,	5.9	152
187	Atmospheric transport and deposition of mineral dust to the ocean: implications for research needs. <i>Environmental Science & Technology</i> , 2012 , 46, 10390-404	10.3	148
186	Impacts of atmospheric nutrient deposition on marine productivity: Roles of nitrogen, phosphorus, and iron. <i>Global Biogeochemical Cycles</i> , 2011 , 25, n/a-n/a	5.9	148
185	Revisiting atmospheric dust export to the Southern Hemisphere ocean: Biogeochemical implications. <i>Global Biogeochemical Cycles</i> , 2008 , 22, n/a-n/a	5.9	143
184	Dissolved iron in the vicinity of the Crozet Islands, Southern Ocean. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2007 , 54, 1999-2019	2.3	141

183	A model for studies of tropospheric photochemistry: Description, global distributions, and evaluation. <i>Journal of Geophysical Research</i> , 1999 , 104, 26245-26277		134
182	Radiative forcing of climate by ice-age atmospheric dust. <i>Climate Dynamics</i> , 2003 , 20, 193-202	4.2	133
181	Mechanisms governing interannual variability in upper-ocean inorganic carbon system and air-sea CO ₂ fluxes: Physical climate and atmospheric dust. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2009 , 56, 640-655	2.3	131
180	Transport of 222radon 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. <i>Journal of Geophysical Research</i> , 1997 , 102, 28139-28151		131
179	Preindustrial-Control and Twentieth-Century Carbon Cycle Experiments with the Earth System Model CESM1(BGC). <i>Journal of Climate</i> , 2014 , 27, 8981-9005	4.4	125
178	Climate response and radiative forcing from mineral aerosols during the last glacial maximum, pre-industrial, current and doubled-carbon dioxide climates. <i>Geophysical Research Letters</i> , 2006 , 33,	4.9	119
177	Impacts of biomass burning emissions and land use change on Amazonian atmospheric phosphorus cycling and deposition. <i>Global Biogeochemical Cycles</i> , 2005 , 19, n/a-n/a	5.9	114
176	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. <i>Climate Dynamics</i> , 2010 , 35, 3-27	4.2	110
175	An improved dust emission model [Part 1: Model description and comparison against measurements. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 13023-13041	6.8	109
174	The impacts of climate, land use, and demography on fires during the 21st century simulated by CLM-CN. <i>Biogeosciences</i> , 2012 , 9, 509-525	4.6	108
173	The PMIP4 contribution to CMIP6 [Part 1: Overview and over-arching analysis plan. <i>Geoscientific Model Development</i> , 2018 , 11, 1033-1057	6.3	106
172	Impacts of atmospheric nutrient inputs on marine biogeochemistry. <i>Journal of Geophysical Research</i> , 2010 , 115,		105
171	Mineral aerosol and cloud interactions. <i>Geophysical Research Letters</i> , 2003 , 30,	4.9	104
170	Nitrogen fixation amplifies the ocean biogeochemical response to decadal timescale variations in mineral dust deposition. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2006 , 58, 560-572	3.3	103
169	. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2000 , 52, 1025-1056	3.3	103
168	The PMIP4 contribution to CMIP6 [Part 4: Scientific objectives and experimental design of the PMIP4-CMIP6 Last Glacial Maximum experiments and PMIP4 sensitivity experiments. <i>Geoscientific Model Development</i> , 2017 , 10, 4035-4055	6.3	98
167	Impacts of increasing anthropogenic soluble iron and nitrogen deposition on ocean biogeochemistry. <i>Global Biogeochemical Cycles</i> , 2009 , 23, n/a-n/a	5.9	98
166	Aerosol trace metal leaching and impacts on marine microorganisms. <i>Nature Communications</i> , 2018 , 9, 2614	17.4	98

165	Estimation of iron solubility from observations and a global aerosol model. <i>Journal of Geophysical Research</i> , 2005 , 110,		95
164	Global and regional importance of the direct dust-climate feedback. <i>Nature Communications</i> , 2018 , 9, 241	17.4	93
163	The PMIP4 contribution to CMIP6 [Part 2: Two interglacials, scientific objective and experimental design for Holocene and Last Interglacial simulations. <i>Geoscientific Model Development</i> , 2017 , 10, 3979-4003	6.3	92
162	Modeling dust as component minerals in the Community Atmosphere Model: development of framework and impact on radiative forcing. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 537-561	6.8	92
161	The significance of the episodic nature of atmospheric deposition to Low Nutrient Low Chlorophyll regions. <i>Global Biogeochemical Cycles</i> , 2014 , 28, 1179-1198	5.9	90
160	The Community Earth System Model: A Framework for Collaborative Research. <i>Bulletin of the American Meteorological Society</i> , 130204122247009	6.1	89
159	Pyrogenic iron: The missing link to high iron solubility in aerosols. <i>Science Advances</i> , 2019 , 5, eaau7671	14.3	88
158	Is atmospheric phosphorus pollution altering global alpine Lake stoichiometry?. <i>Global Biogeochemical Cycles</i> , 2015 , 29, 1369-1383	5.9	88
157	Twelve thousand years of dust: the Holocene global dust cycle constrained by natural archives. <i>Climate of the Past</i> , 2015 , 11, 869-903	3.9	84
156	The Role of Easterly Waves on African Desert Dust Transport. <i>Journal of Climate</i> , 2003 , 16, 3617-3628	4.4	83
155	Understanding the 30-year Barbados desert dust record. <i>Journal of Geophysical Research</i> , 2002 , 107, AAC 7-1-AAC 7-16		83
154	Anthropocene changes in desert area: Sensitivity to climate model predictions. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	81
153	Ephemeral lakes and desert dust sources. <i>Geophysical Research Letters</i> , 2003 , 30,	4.9	80
152	Dust emission response to climate in southern Africa. <i>Journal of Geophysical Research</i> , 2007 , 112,		78
151	Sensitivity of TOMS aerosol index to boundary layer height: Implications for detection of mineral aerosol sources. <i>Geophysical Research Letters</i> , 2004 , 31,	4.9	75
150	Comparing modeled and observed changes in mineral dust transport and deposition to Antarctica between the Last Glacial Maximum and current climates. <i>Climate Dynamics</i> , 2012 , 38, 1731-1755	4.2	74
149	Applying the Adjoint Method for Biogeochemical Modeling: Export of Particulate Organic Matter in the World Ocean. <i>Geophysical Monograph Series</i> , 2000 , 107-124	1.1	73
148	An improved dust emission model [Part 2: Evaluation in the Community Earth System Model, with implications for the use of dust source functions. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 13043-13061	6.8	65

147	Sea-salt aerosol response to climate change: Last Glacial Maximum, preindustrial, and doubled carbon dioxide climates. <i>Journal of Geophysical Research</i> , 2006 , 111,		65
146	A comparison of scavenging and deposition processes in global models: results from the WCRP Cambridge Workshop of 1995. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2000 , 52, 1025-1056	3.3	65
145	Projections of leaf area index in earth system models. <i>Earth System Dynamics</i> , 2016 , 7, 211-229	4.8	65
144	Aerosol Deposition Impacts on Land and Ocean Carbon Cycles. <i>Current Climate Change Reports</i> , 2017 , 3, 16-31	9	64
143	Contribution of ocean, fossil fuel, land biosphere, and biomass burning carbon fluxes to seasonal and interannual variability in atmospheric CO ₂ . <i>Journal of Geophysical Research</i> , 2008 , 113, n/a-n/a		63
142	Effects of African dust deposition on phytoplankton in the western tropical Atlantic Ocean off Barbados. <i>Global Biogeochemical Cycles</i> , 2016 , 30, 716-734	5.9	63
141	Constraining the atmospheric limb of the plastic cycle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	62
140	Estimate of changes in agricultural terrestrial nitrogen pathways and ammonia emissions from 1850 to present in the Community Earth System Model. <i>Biogeosciences</i> , 2016 , 13, 3397-3426	4.6	62
139	Black carbon radiative effects highly sensitive to emitted particle size when resolving mixing-state diversity. <i>Nature Communications</i> , 2018 , 9, 3446	17.4	59
138	African biomass burning is a substantial source of phosphorus deposition to the Amazon, Tropical Atlantic Ocean, and Southern Ocean. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 16216-16221	11.5	59
137	Sensitivity of wetland methane emissions to model assumptions: application and model testing against site observations. <i>Biogeosciences</i> , 2012 , 9, 2793-2819	4.6	57
136	Paleodust variability since the Last Glacial Maximum and implications for iron inputs to the ocean. <i>Geophysical Research Letters</i> , 2016 , 43, 3944-3954	4.9	56
135	Cumulus parameterizations in chemical transport models. <i>Journal of Geophysical Research</i> , 1995 , 100, 26173		56
134	Characteristics of Atmospheric Transport Using Three Numerical Formulations for Atmospheric Dynamics in a Single GCM Framework. <i>Journal of Climate</i> , 2006 , 19, 2243-2266	4.4	55
133	Glacially sourced dust as a potentially significant source of ice nucleating particles. <i>Nature Geoscience</i> , 2019 , 12, 253-258	18.3	54
132	The role of mineral-dust aerosols in polar temperature amplification. <i>Nature Climate Change</i> , 2013 , 3, 487-491	21.4	54
131	Potentially bioavailable iron delivery by iceberg-hosted sediments and atmospheric dust to the polar oceans. <i>Biogeosciences</i> , 2016 , 13, 3887-3900	4.6	51
130	Observational evidence of African desert dust intensification of easterly waves. <i>Geophysical Research Letters</i> , 2004 , 31, n/a-n/a	4.9	50

129	Potential climate forcing of land use and land cover change. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 12701-12724	6.8	49
128	Multicentury changes in ocean and land contributions to the climate-carbon feedback. <i>Global Biogeochemical Cycles</i> , 2015 , 29, 744-759	5.9	49
127	Model insight into glacial/interglacial paleodust records. <i>Quaternary Science Reviews</i> , 2011 , 30, 832-854	3.9	49
126	Deducing CCl ₃ F emissions using an inverse method and chemical transport models with assimilated winds. <i>Journal of Geophysical Research</i> , 1997 , 102, 28153-28168		49
125	Stratospheric transport in a three-dimensional isentropic coordinate model. <i>Journal of Geophysical Research</i> , 2002 , 107, ACH 3-1		49
124	Anthropogenic combustion iron as a complex climate forcer. <i>Nature Communications</i> , 2018 , 9, 1593	17.4	48
123	Atmospheric deposition and surface stratification as controls of contrasting chlorophyll abundance in the North Indian Ocean. <i>Journal of Geophysical Research</i> , 2007 , 112,		48
122	The fate of phosphorus fertilizer in Amazon soya bean fields. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013 , 368, 20120154	5.8	47
121	Comment on Relative importance of climate and land use in determining present and future global soil dust emission by I. Tegen et al.. <i>Geophysical Research Letters</i> , 2004 , 31,	4.9	47
120	Atmospheric Carbon Dioxide Variability in the Community Earth System Model: Evaluation and Transient Dynamics during the Twentieth and Twenty-First Centuries. <i>Journal of Climate</i> , 2013 , 26, 4447-4475	4.4	45
119	Ocean temperature forcing by aerosols across the Atlantic tropical cyclone development region. <i>Geochemistry, Geophysics, Geosystems</i> , 2008 , 9, n/a-n/a	3.6	45
118	Shape and size constraints on dust optical properties from the Dome C ice core, Antarctica. <i>Scientific Reports</i> , 2016 , 6, 28162	4.9	44
117	Equatorial upwelling enhances nitrogen fixation in the Atlantic Ocean. <i>Geophysical Research Letters</i> , 2013 , 40, 1766-1771	4.9	44
116	Maintenance of Lower Tropospheric Temperature Inversion in the Saharan Air Layer by Dust and Dry Anomaly. <i>Journal of Climate</i> , 2009 , 22, 5149-5162	4.4	44
115	Atlantic Southern Ocean productivity: Fertilization from above or below?. <i>Global Biogeochemical Cycles</i> , 2007 , 21, n/a-n/a	5.9	44
114	Interannual and seasonal variability in atmospheric N ₂ O. <i>Global Biogeochemical Cycles</i> , 2007 , 21, n/a-n/a	5.9	44
113	Reviews and syntheses: the GESAMP atmospheric iron deposition model intercomparison study. <i>Biogeosciences</i> , 2018 , 15, 6659-6684	4.6	44
112	Tracing and constraining anthropogenic aerosol iron fluxes to the North Atlantic Ocean using iron isotopes. <i>Nature Communications</i> , 2019 , 10, 2628	17.4	43

111	Tracing dust input to the global ocean using thorium isotopes in marine sediments: ThoroMap. <i>Global Biogeochemical Cycles</i> , 2016 , 30, 1526-1541	5.9	42
110	Modeling the global emission, transport and deposition of trace elements associated with mineral dust. <i>Biogeosciences</i> , 2015 , 12, 5771-5792	4.6	39
109	Simulation of absorbing aerosol indices for African dust. <i>Journal of Geophysical Research</i> , 2005 , 110,		39
108	Coupling between Land Ecosystems and the Atmospheric Hydrologic Cycle through Biogenic Aerosol Pathways. <i>Bulletin of the American Meteorological Society</i> , 2005 , 86, 1738-1742	6.1	39
107	Desert dust and anthropogenic aerosol interactions in the Community Climate System Model coupled-carbon-climate model. <i>Biogeosciences</i> , 2011 , 8, 387-414	4.6	38
106	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. <i>Climate Dynamics</i> , 2011 , 37, 2289-2301	4.2	38
105	Impacts of anthropogenic SO _x , NO _x and NH ₃ on acidification of coastal waters and shipping lanes. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	37
104	A numerical study of the climate response to lowered Mediterranean Sea level during the Messinian Salinity Crisis. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2009 , 279, 41-59	2.9	37
103	Biogeochemical signatures of nitrogen fixation in the eastern North Atlantic. <i>Geophysical Research Letters</i> , 2003 , 30,	4.9	36
102	Radiative Forcing of Climate: The Historical Evolution of the Radiative Forcing Concept, the Forcing Agents and their Quantification, and Applications. <i>Meteorological Monographs</i> , 2019 , 59, 14.1-14.101	5.7	34
101	Temporal variability of dust mobilization and concentration in source regions. <i>Journal of Geophysical Research</i> , 2004 , 109,		34
100	Impact of Changes to the Atmospheric Soluble Iron Deposition Flux on Ocean Biogeochemical Cycles in the Anthropocene. <i>Global Biogeochemical Cycles</i> , 2020 , 34, e2019GB006448	5.9	33
99	North-South asymmetry in the modeled phytoplankton community response to climate change over the 21st century. <i>Global Biogeochemical Cycles</i> , 2013 , 27, 1274-1290	5.9	33
98	Interactions between land use change and carbon cycle feedbacks. <i>Global Biogeochemical Cycles</i> , 2017 , 31, 96-113	5.9	31
97	Evaluation of global simulations of aerosol particle and cloud condensation nuclei number, with implications for cloud droplet formation. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 8591-8617	6.8	31
96	Direct measurements of atmospheric iron, cobalt, and aluminum-derived dust deposition at Kerguelen Islands. <i>Global Biogeochemical Cycles</i> , 2012 , 26, n/a-n/a	5.9	31
95	Contribution of the world's main dust source regions to the global cycle of desert dust. <i>Atmospheric Chemistry and Physics</i> , 2021 , 21, 8169-8193	6.8	31
94	Contributions of developed and developing countries to global climate forcing and surface temperature change. <i>Environmental Research Letters</i> , 2014 , 9, 074008	6.2	30

93	Particulate absorption of solar radiation: anthropogenic aerosols vs. dust. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 3935-3945	6.8	30
92	Measurement Equation for Trace Chemicals in Fluids and Solution of its Inverse. <i>Geophysical Monograph Series</i> , 2000 , 3-18	1.1	30
91	West African monsoon decadal variability and surface-related forcings: Second West African Monsoon Modeling and Evaluation Project Experiment (WAMME II). <i>Climate Dynamics</i> , 2016 , 47, 3517-3545	4.2	29
90	Parameterization-based uncertainty in future lightning flash density. <i>Geophysical Research Letters</i> , 2017 , 44, 2893-2901	4.9	28
89	Climate-driven oscillation of phosphorus and iron limitation in the North Pacific Subtropical Gyre. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 12720-12728	11.5	26
88	Development of a global aerosol model using a two-dimensional sectional method: 2. Evaluation and sensitivity simulations. <i>Journal of Advances in Modeling Earth Systems</i> , 2017 , 9, 1887-1920	7.1	26
87	Long-term variability in Saharan dust transport and its link to North Atlantic sea surface temperature. <i>Geophysical Research Letters</i> , 2008 , 35, n/a-n/a	4.9	26
86	Global tracer modeling during SOLVE: High-latitude descent and mixing. <i>Journal of Geophysical Research</i> , 2002 , 107, SOL 52-1-SOL 52-14		26
85	Carbon-nitrogen interactions regulate climate-carbon cycle feedbacks: results from an atmosphere-ocean general circulation model		26
84	A model-based evaluation of tropical climate in Pangaea during the late Palaeozoic icehouse. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2015 , 425, 109-127	2.9	25
83	The sensitivity of carbon turnover in the Community Land Model to modified assumptions about soil processes. <i>Earth System Dynamics</i> , 2014 , 5, 211-221	4.8	25
82	Dust transport from non-East Asian sources to the North Pacific. <i>Geophysical Research Letters</i> , 2012 , 39, n/a-n/a	4.9	24
81	Historical (1850-2000) gridded anthropogenic and biomass burning emissions of reactive gases and aerosols: methodology and application		24
80	Major Impact of Dust Deposition on the Productivity of the Arabian Sea. <i>Geophysical Research Letters</i> , 2019 , 46, 6736-6744	4.9	23
79	Interannual variability in hindcasts of atmospheric chemistry: the role of meteorology. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 5261-5280	6.8	23
78	Atmospheric processing of iron in mineral and combustion aerosols: development of an intermediate-complexity mechanism suitable for Earth system models. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 14175-14196	6.8	23
77	Impacts of Aerosol Dry Deposition on Black Carbon Spatial Distributions and Radiative Effects in the Community Atmosphere Model CAM5. <i>Journal of Advances in Modeling Earth Systems</i> , 2018 , 10, 1150-1171	7.1	21
76	Ocean-Atmosphere Interactions of Particles. <i>Springer Earth System Sciences</i> , 2014 , 171-246	0.3	21

75	Global dust model intercomparison in AeroCom phase I		20
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