S-M Fan

List of Publications by Year
in descending order

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81 papers	13,360 citations	61857 43 h-index	66788 78 g-index
85 all docs	85 docs citations	85 times ranked	10568 citing authors

#	Article	IF	Citations
1	Measurements of carbon sequestration by long-term eddy covariance: methods and a critical evaluation of accuracy. Global Change Biology, 1996, 2, 169-182.	4.2	1,240
2	Towards robust regional estimates of CO2 sources and sinks using atmospheric transport models. Nature, 2002, 415, 626-630.	13.7	1,157
3	Net Exchange of CO2 in a Mid-Latitude Forest. Science, 1993, 260, 1314-1317.	6.0	833
4	Consistent Land- and Atmosphere-Based U.S. Carbon Sink Estimates. Science, 2001, 292, 2316-2320.	6.0	746
5	A Large Terrestrial Carbon Sink in North America Implied by Atmospheric and Oceanic Carbon Dioxide Data and Models. , 1998, 282, 442-446.		713
6	Sensitivity of Boreal Forest Carbon Balance to Soil Thaw. Science, 1998, 279, 214-217.	6.0	704
7	Exchange of Carbon Dioxide by a Deciduous Forest: Response to Interannual Climate Variability. Science, 1996, 271, 1576-1578.	6.0	649
8	Modelling the soil-plant-atmosphere continuum in a Quercus-Acer stand at Harvard Forest: the regulation of stomatal conductance by light, nitrogen and soil/plant hydraulic properties. Plant, Cell and Environment, 1996, 19, 911-927.	2.8	510
9	Dust transport and deposition observed from the Terra-Moderate Resolution Imaging Spectroradiometer (MODIS) spacecraft over the Atlantic Ocean. Journal of Geophysical Research, 2005, 110, .	3.3	499
10	Surface ozone depletion in Arctic spring sustained by bromine reactions on aerosols. Nature, 1992, 359, 522-524.	13.7	433
11	Origin of ozone and NOxin the tropical troposphere: A photochemical analysis of aircraft observations over the South Atlantic basin. Journal of Geophysical Research, 1996, 101, 24235-24250.	3.3	335
12	Physiological responses of a black spruce forest to weather. Journal of Geophysical Research, 1997, 102, 28987-28996.	3.3	332
13	Evidence of inorganic chlorine gases other than hydrogen chloride in marine surface air. Geophysical Research Letters, 1993, 20, 699-702.	1.5	311
14	Atmosphereâ€biosphere exchange of CO₂ and O₃ in the central Amazon Forest. Journal of Geophysical Research, 1990, 95, 16851-16864.	3.3	295
15	TransCom 3 CO2 inversion intercomparison: 1. Annual mean control results and sensitivity to transport and prior flux information. Tellus, Series B: Chemical and Physical Meteorology, 2003, 55, 555-579.	0.8	235
16	The Southern Ocean Biological Response to Aeolian Iron Deposition. Science, 2007, 317, 1067-1070.	6.0	194
17	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.	1.3	185
18	Radical loss in the atmosphere from Cu-Fe redox coupling in aerosols. Atmospheric Chemistry and Physics, 2013, 13, 509-519.	1.9	156

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19	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.	1.3	155
20	Atmospheric deposition of reactive nitrogen oxides and ozone in a temperate deciduous forest and a subarctic woodland: 1. Measurements and mechanisms. Journal of Geophysical Research, 1996, 101, 12639-12657.	3.3	154
21	Tropospheric ozone trends at Mauna Loa Observatory tied to decadal climate variability. Nature Geoscience, 2014, 7, 136-143.	5.4	151
22	Aeolian input of bioavailable iron to the ocean. Geophysical Research Letters, 2006, 33, .	1.5	146
23	Evaluation of factors controlling long-range transport of black carbon to the Arctic. Journal of Geophysical Research, 2011, 116, .	3.3	144
24	TransCom model simulations of hourly atmospheric CO₂: Experimental overview and diurnal cycle results for 2002. Global Biogeochemical Cycles, 2008, 22, .	1.9	142
25	Modelling temporal variability in the carbon balance of a spruce/moss boreal forest. Global Change Biology, 1996, 2, 343-366.	4.2	138
26	Summertime photochemistry of the troposphere at high northern latitudes. Journal of Geophysical Research, 1992, 97, 16421-16431.	3.3	127
27	Aeolian iron input to the ocean through precipitation scavenging: A modeling perspective and its implication for natural iron fertilization in the ocean. Journal of Geophysical Research, 2003, 108, .	3.3	125
28	A Cumulus Parameterization Including Mass Fluxes, Convective Vertical Velocities, and Mesoscale Effects: Thermodynamic and Hydrological Aspects in a General Circulation Model. Journal of Climate, 2001, 14, 3444-3463.	1.2	124
29	Emission of nitric oxide (NO) from tropical forest soils and exchange of NO between the forest canopy and atmospheric boundary layers. Journal of Geophysical Research, 1990, 95, 16755-16764.	3.3	122
30	TransCom model simulations of hourly atmospheric CO₂: Analysis of synoptic€scale variations for the period 2002â€“2003. Global Biogeochemical Cycles, 2008, 22, .	1.9	119
31	Air-snow exchange of HNO3and NOyat Summit, Greenland. Journal of Geophysical Research, 1998, 103, 3475-3486.	3.3	117
32	Environmental controls on the photosynthesis and respiration of a boreal lichen woodland: a growing season of whole-ecosystem exchange measurements by eddy correlation. Oecologia, 1995, 102, 443-452.	0.9	111
33	TransCom 3 CO₂ inversion intercomparison: 1. Annual mean control results and sensitivity to transport and prior flux information. Tellus, Series B: Chemical and Physical Meteorology, 2022, 55, 555.	0.8	105
34	Optimal sampling of the atmosphere for purpose of inverse modeling: A model study. Global Biogeochemical Cycles, 2000, 14, 407-428.	1.9	104
35	Three-dimensional transport and concentration of SF6. A model intercomparison study (TransCom 2). Tellus, Series B: Chemical and Physical Meteorology, 1999, 51, 266-297.	0.8	101
36	Regional budgets for nitrogen oxides from continental sources: Variations of rates for oxidation and deposition with season and distance from source regions. Journal of Geophysical Research, 1998, 103, 8355-8368.	3.3	100

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37	Impact of air pollution on wet deposition of mineral dust aerosols. Geophysical Research Letters, 2004, 31, .	1.5	89
38	Three-dimensional transport and concentration of SF₆ A model intercomparison study (TransCom 2). Tellus, Series B: Chemical and Physical Meteorology, 2022, 51, 266.	0.8	88
39	Air-sea flux of oxygen estimated from bulk data: Implications For the marine and atmospheric oxygen cycles. Global Biogeochemical Cycles, 2001, 15, 783-803.	1.9	86
40	Origin of tropospheric ozone at remote high northern latitudes in summer. Journal of Geophysical Research, 1996, 101, 4175-4188.	3.3	84
41	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.	1.9	79
42	Origin of tropospheric NOxover subarctic eastern Canada in summer. Journal of Geophysical Research, 1994, 99, 16867.	3.3	78
43	Biosphere/atmosphere CO₂ exchange in tundra ecosystems: Community characteristics and relationships with multispectral surface reflectance. Journal of Geophysical Research, 1992, 97, 16671-16680.	3.3	73
44	Ocean Biogeochemistry in GFDL's Earth System Model 4.1 and Its Response to Increasing Atmospheric CO₂. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002043.	1.3	70
45	Global inâ€cloud production of secondary organic aerosols: Implementation of a detailed chemical mechanism in the GFDL atmospheric model AM3. Journal of Geophysical Research, 2012, 117, .	3.3	57
46	Measurements of reactive nitrogen oxides (NO_y) within and above a tropical forest canopy in the wet season. Journal of Geophysical Research, 1990, 95, 16765-16772.	3.3	49
47	Factors influencing atmospheric composition over subarctic North America during summer. Journal of Geophysical Research, 1994, 99, 1887.	3.3	47
48	Photochemical and biochemical controls on reactive oxygen and iron speciation in the pelagic surface ocean. Marine Chemistry, 2008, 109, 152-164.	0.9	47
49	Deposition of ozone to tundra. Journal of Geophysical Research, 1992, 97, 16473-16479.	3.3	45
50	A model-based evaluation of inversions of atmospheric transport, using annual mean mixing ratios, as a tool to monitor fluxes of nonreactive trace substances like CO2on a continental scale. Journal of Geophysical Research, 1999, 104, 14245-14260.	3.3	43
51	Concentrations and snow-atmosphere fluxes of reactive nitrogen at Summit, Greenland. Journal of Geophysical Research, 1999, 104, 13721-13734.	3.3	42
52	Measurements of NO_x and NO_y concentrations and fluxes over Arctic tundra. Journal of Geophysical Research, 1992, 97, 16545-16557.	3.3	40
53	Sensitivity of inverse estimation of annual mean CO2sources and sinks to ocean-only sites versus all-sites observational networks. Geophysical Research Letters, 2006, 33, .	1.5	40
54	Contrasting seasonal responses of sulfate aerosols to declining SO₂ emissions in the Eastern U.S.: Implications for the efficacy of SO₂ emission controls. Geophysical Research Letters, 2017, 44, 455-464.	1.5	40

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55	Interannual variability of air-sea O2fluxes and the determination of CO2sinks using atmospheric O2/N2. Geophysical Research Letters, 2003, 30, .	1.5	38
56	Sensitivity of tropospheric oxidants to biomass burning emissions: implications for radiative forcing. Geophysical Research Letters, 2013, 40, 1241-1246.	1.5	36
57	Analysis of transpacific transport of black carbon during HIPPO-3: implications for black carbon aging. Atmospheric Chemistry and Physics, 2014, 14, 6315-6327.	1.9	32
58	Potential health benefits of controlling dust emissions in Beijing. Environmental Pollution, 2016, 213, 850-859.	3.7	32
59	Evaluation of factors controlling global secondary organic aerosol production from cloud processes. Atmospheric Chemistry and Physics, 2013, 13, 1913-1926.	1.9	27
60	Modeling of observed mineral dust aerosols in the arctic and the impact on winter season lowâ€level clouds. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,161.	1.2	27
61	Inferring ice formation processes from globalâ€scale black carbon profiles observed in the remote atmosphere and model simulations. Journal of Geophysical Research, 2012, 117, .	3.3	25
62	The meteorological nature of variable soluble iron transport and deposition within the North Atlantic Ocean basin. Journal of Geophysical Research, 2011, 116, .	3.3	24
63	Measurements and models of the atmospheric Ar/N2ratio. Geophysical Research Letters, 2003, 30, .	1.5	23
64	Soluble Fe in Aerosols Sustained by Gaseous HO₂ Uptake. Environmental Science and Technology Letters, 2017, 4, 98-104.	3.9	22
65	Coarse particle soil dust in Arctic aerosols, spring 1983. Geophysical Research Letters, 1984, 11, 995-998.	1.5	21
66	Effects of the stratospheric quasi-biennial oscillation on long-lived greenhouse gases in the troposphere. Journal of Geophysical Research, 2000, 105, 20581-20587.	3.3	21
67	Particulate sulfur and chlorine in Arctic aerosols, spring 1983. Atmospheric Environment, 1985, 19, 2167-2173.	1.1	19
68	On the use of regularization techniques in the inverse modeling of atmospheric carbon dioxide. Journal of Geophysical Research, 1999, 104, 21503-21512.	3.3	19
69	Terrestrial carbon sink in the Northern Hemisphere estimated from the atmospheric CO2 difference between Mauna Loa and the South Pole since 1959. Tellus, Series B: Chemical and Physical Meteorology, 1999, 51, 863-870.	0.8	10
70	Response to Comment on "The Southern Ocean Biological Response to Aeolian Iron Deposition". Science, 2008, 319, 159-159.	6.0	10
71	Twoâ€Moment Bulk Cloud Microphysics With Prognostic Precipitation in GFDL's Atmosphere Model AM4.0: Configuration and Performance. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002453.	1.3	10
72	Implications of droplet nucleation to mineral dust aerosol deposition and transport. Geophysical Research Letters, 2005, 32, .	1.5	8

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73	Atmospheric energy transport to the Arctic 1979â€“2012. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 67, 25482.	0.8	8
74	A potential large and persistent black carbon forcing over Northern Pacific inferred from satellite observations. Scientific Reports, 2017, 7, 43429.	1.6	7
75	Terrestrial carbon sink in the Northern Hemisphere estimated from the atmospheric CO₂ difference between Mauna Loa and the South Pole since 1959. Tellus, Series B: Chemical and Physical Meteorology, 2022, 51, 863.	0.8	6
76	Arctic and East Asia Winter Climate Variations Associated with the Eastern Atlantic Pattern. Journal of Climate, 2017, 30, 573-583.	1.2	6
77	Modeling of Aircraft Measurements of Ice Crystal Concentration in the Arctic and a Parameterization for Mixed-Phase Cloud. Journals of the Atmospheric Sciences, 2017, 74, 3799-3814.	0.6	5
78	Toward Improved Cloud-Phase Simulation with a Mineral Dust and Temperature-Dependent Parameterization for Ice Nucleation in Mixed-Phase Clouds. Journals of the Atmospheric Sciences, 2019, 76, 3655-3667.	0.6	5
79	Models of iron speciation and concentration in the stratified epipelagic ocean. Geophysical Research Letters, 2011, 38, .	1.5	3
80	A Time-Dependent Two-Dimensional-Model Study of the Trend in Atmospheric Methane. , 1993, , 98-112.		1
81	The Influence of Extratropical Weather Regimes on Wintertime Temperature Variations in the Arctic during 1979â€“2019. Atmosphere, 2022, 13, 880.	1.0	0