Nicholas Meskhidze

List of Publications by Year
in descending order

48 papers	2,918 citations	218592 26 h-index	197736 49 g-index
67 all docs	67 docs citations	67 times ranked	3293 citing authors

#	Article	IF	Citations
1	Phytoplankton and Cloudiness in the Southern Ocean. Science, 2006, 314, 1419-1423.	6.0	308
2	Iron mobilization in mineral dust: Can anthropogenic SO2emissions affect ocean productivity?. Geophysical Research Letters, 2003, 30, .	1.5	267
3	The physical and chemical characteristics of marine primary organic aerosol: a review. Atmospheric Chemistry and Physics, 2013, 13, 3979-3996.	1.9	211
4	Dust and pollution: A recipe for enhanced ocean fertilization?. Journal of Geophysical Research, 2005, 110, .	3.3	208
5	A new physically-based quantification of marine isoprene and primary organic aerosol emissions. Atmospheric Chemistry and Physics, 2009, 9, 4915-4927.	1.9	161
6	Wind speed dependent size-resolved parameterization for the organic mass fraction of sea spray aerosol. Atmospheric Chemistry and Physics, 2011, 11, 8777-8790.	1.9	150
7	Production and Emissions of Marine Isoprene and Monoterpenes: A Review. Advances in Meteorology, 2010, 2010, 1-24.	0.6	146
8	Pyrogenic iron: The missing link to high iron solubility in aerosols. Science Advances, 2019, 5, eaau7671.	4.7	128
9	Estimation of iron solubility from observations and a global aerosol model. Journal of Geophysical Research, 2005, 110, .	3.3	99
10	Acidic processing of mineral dust iron by anthropogenic compounds over the north Pacific Ocean. Journal of Geophysical Research, 2009, 114, .	3.3	97
11	Global distribution and climate forcing of marine organic aerosol: 1. Model improvements and evaluation. Atmospheric Chemistry and Physics, 2011, 11, 11689-11705.	1.9	87
12	Evaluation of a new cloud droplet activation parameterization with in situ data from CRYSTAL-FACE and CSTRIPE. Journal of Geophysical Research, 2005, 110, .	3.3	86
13	Atmospheric dissolved iron deposition to the global oceans: effects of oxalate-promoted Fe dissolution, photochemical redox cycling, and dust mineralogy. Geoscientific Model Development, 2013, 6, 1137-1155.	1.3	81
14	Modeling dust and soluble iron deposition to the South Atlantic Ocean. Journal of Geophysical Research, 2010, 115, .	3.3	72
15	Acceleration of oxygen decline in the tropical Pacific over the past decades by aerosol pollutants. Nature Geoscience, 2016, 9, 443-447.	5.4	67
16	Reviews and syntheses: the GESAMP atmospheric iron deposition model intercomparison study. Biogeosciences, 2018, 15, 6659-6684.	1.3	63
17	Understanding the transport of Patagonian dust and its influence on marine biological activity in the South Atlantic Ocean. Atmospheric Chemistry and Physics, 2011, 11, 2487-2502.	1.9	61
18	Quantifying environmental stress-induced emissions of algal isoprene and monoterpenes using laboratory measurements. Biogeosciences, 2015, 12, 637-651.	1.3	58

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19	Atlantic Southern Ocean productivity: Fertilization from above or below?. Global Biogeochemical Cycles, 2007, 21, n/a-n/a.	1.9	52
20	Perspective on identifying and characterizing the processes controlling iron speciation and residence time at the atmosphere-ocean interface. Marine Chemistry, 2019, 217, 103704.	0.9	41
21	The effect of marine isoprene emissions on secondary organic aerosol and ozone formation in the coastal United States. Atmospheric Environment, 2010, 44, 115-121.	1.9	37
22	A global comparison of GEOSâ€Chemâ€predicted and remotelyâ€sensed mineral dust aerosol optical depth and extinction profiles. Journal of Advances in Modeling Earth Systems, 2012, 4, .	1.3	36
23	Model evaluation of marine primary organic aerosol emission schemes. Atmospheric Chemistry and Physics, 2012, 12, 8553-8566.	1.9	34
24	Global distribution and climate forcing of marine organic aerosol â€“ Part 2: Effects on cloud properties and radiative forcing. Atmospheric Chemistry and Physics, 2012, 12, 6555-6563.	1.9	33
25	Spaceborne observations of the lidar ratio of marine aerosols. Atmospheric Chemistry and Physics, 2015, 15, 3241-3255.	1.9	28
26	Deriving the effect of wind speed on clean marine aerosol optical properties using the A-Train satellites. Atmospheric Chemistry and Physics, 2011, 11, 11401-11413.	1.9	23
27	The contribution of marine organics to the air quality of the western United States. Atmospheric Chemistry and Physics, 2010, 10, 7415-7423.	1.9	21
28	Effects of Ocean Ecosystem on Marine Aerosol-Cloud Interaction. Advances in Meteorology, 2010, 2010, 1-13.	0.6	20
29	Surface ocean microbiota determine cloud precursors. Scientific Reports, 2021, 11, 281.	1.6	19
30	Hygroscopic growth and cloud droplet activation of xanthan gum as a proxy for marine hydrogels. Journal of Geophysical Research D: Atmospheres, 2016, 121, 11,803.	1.2	18
31	Potential effect of atmospheric dissolved organic carbon on the iron solubility in seawater. Marine Chemistry, 2017, 194, 124-132.	0.9	17
32	Isoprene, Cloud Droplets, and Phytoplankton. Science, 2007, 317, 42-43.	6.0	15
33	Influence of measurement uncertainties on fractional solubility of iron in mineral aerosols over the oceans. Aeolian Research, 2016, 22, 85-92.	1.1	15
34	Implementing marine organic aerosols into the GEOS-Chem model. Geoscientific Model Development, 2015, 8, 619-629.	1.3	12
35	Aerosol Properties Observed in the Subtropical North Pacific Boundary Layer. Journal of Geophysical Research D: Atmospheres, 2017, 122, 9990.	1.2	11
36	Does Marine Surface Tension Have Global Biogeography? Addition for the OCEANFILMS Package. Atmosphere, 2018, 9, 216.	1.0	10

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37	Spatial and temporal variations of PM2.5 mass closure and inorganic PM2.5 in the Southeastern U.S.. Environmental Science and Pollution Research, 2019, 26, 33181-33191.	2.7	10
38	Observations of new particle formation, modal growth rates, and direct emissions of sub-10 nm particles in an urban environment. Atmospheric Environment, 2020, 242, 117835.	1.9	10
39	Possible Wintertime Sources of Fine Particles in an Urban Environment. Journal of Geophysical Research D: Atmospheres, 2019, 124, 13055-13070.	1.2	7
40	Hygroscopicityâ€•and Sizeâ€Resolved Measurements of Submicron Aerosol on the East Coast of the United States. Journal of Geophysical Research D: Atmospheres, 2018, 123, 1826-1839.	1.2	6
41	Interpreting elevated space-borne HCHO columns over the Mediterranean Sea using the OMI sensor. Atmospheric Chemistry and Physics, 2011, 11, 12787-12798.	1.9	5
42	Spatial and temporal variations of atmospheric chemical condition in the Southeastern U.S.. Atmospheric Research, 2021, 248, 105190.	1.8	4
43	Improving estimates of PM2.5 concentration and chemical composition by application of High Spectral Resolution Lidar (HSRL) and Creating Aerosol Types from chemistry (CATCH) algorithm. Atmospheric Environment, 2021, 250, 118250.	1.9	4
44	Creating Aerosol Types from CHemistry (CATCH): A New Algorithm to Extend the Link Between Remote Sensing and Models. Journal of Geophysical Research D: Atmospheres, 2017, 122, 12,366.	1.2	3
45	Continuous flow hygroscopicity-resolved relaxed eddy accumulation (Hy-Res REA) method of measuring size-resolved sodium chloride particle fluxes. Aerosol Science and Technology, 2018, 52, 433-450.	1.5	3
46	Ocean Contributions to the Marine Boundary Layer Aerosol Budget. Atmosphere, 2019, 10, 98.	1.0	2
47	Partitioning of NH3-NH4+ in the Southeastern U.S.. Atmosphere, 2021, 12, 1681.	1.0	2
48	MDPI Oceans: A New Publication Channel for Open Access Science Focused on the Ocean. Oceans, 2019, 1, 1-5.	0.6	1