Markus Frey

List of Publications by Year
in descending order

50 papers	3,674 citations	159358 30 h-index	189595 50 g-index
79 all docs	79 docs citations	79 times ranked	3341 citing authors

#	Article	IF	Citations
1	Overview of the MOSAiC expedition: Atmosphere. Elementa, 2022, 10, .	1.1	121
2	Overview of the MOSAiC expedition: Snow and sea ice. Elementa, 2022, 10, .	1.1	91
3	Measurement of gas-phase OH radical oxidation and film thickness of organic films at the airâ€“water interface using material extracted from urban, remote and wood smoke aerosol. Environmental Science Atmospheres, 2022, 2, 574-590.	0.9	3
4	Snowfall and snow accumulation during the MOSAiC winter and spring seasons. Cryosphere, 2022, 16, 2373-2402.	1.5	17
5	Implementation and Impacts of Surface and Blowing Snow Sources of Arctic Bromine Activation Within WRFâ€Chem 4.1.1. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002391.	1.3	23
6	New Estimation of the NO_x Snowâ€Source on the Antarctic Plateau. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035062.	1.2	8
7	Stratospheric Ozone Changes From Explosive Tropical Volcanoes: Modeling and Ice Core Constraints. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032290.	1.2	14
8	Deposition, recycling, and archival of nitrate stable isotopes between the airâ€“snow interface: comparison between Dronning Maud Land and Dome C, Antarctica. Atmospheric Chemistry and Physics, 2020, 20, 5861-5885.	1.9	18
9	Snow Property Controls on Modeled Ku-Band Altimeter Estimates of First-Year Sea Ice Thickness: Case Studies From the Canadian and Norwegian Arctic. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 1082-1096.	2.3	17
10	First direct observation of sea salt aerosol production from blowing snow above sea ice. Atmospheric Chemistry and Physics, 2020, 20, 2549-2578.	1.9	61
11	Sea salt aerosol production via sublimating wind-blown saline snow particles over sea ice: parameterizations and relevant microphysical mechanisms. Atmospheric Chemistry and Physics, 2019, 19, 8407-8424.	1.9	33
12	Fostering multidisciplinary research on interactions between chemistry, biology, and physics within the coupled cryosphere-atmosphere system. Elementa, 2019, 7, .	1.1	6
13	Greenland records of aerosol source and atmospheric lifetime changes from the Eemian to the Holocene. Nature Communications, 2018, 9, 1476.	5.8	74
14	Modelling the physical multiphase interactions of HNO₃ between snow and air on the Antarctic Plateau (DomeÂC) and coast (Halley). Atmospheric Chemistry and Physics, 2018, 18, 1507-1534.	1.9	8
15	Sea ice as a source of sea salt aerosol to Greenland ice cores: a model-based study. Atmospheric Chemistry and Physics, 2017, 17, 9417-9433.	1.9	38
16	Comment on â€œLow time resolution analysis of polar ice cores cannot detect impulsive nitrate eventsâ€• by D.F. Smart et al.. Journal of Geophysical Research: Space Physics, 2016, 121, 1920-1924.	0.8	12
17	Inter-annual variability of surface ozone at coastal (Dumont d'Urville, 2004â€“2014) and inland (Concordia, 2007â€“2014) sites in East Antarctica. Atmospheric Chemistry and Physics, 2016, 16, 8053-8069.	1.9	29
18	Oxygen isotope mass balance of atmospheric nitrate at Dome C, East Antarctica, during the OPALE campaign. Atmospheric Chemistry and Physics, 2016, 16, 2659-2673.	1.9	26

#	ARTICLE	IF	CITATIONS
19	Characterization of the boundary layer at Dome C (East Antarctica) during the OPALE summer campaign. Atmospheric Chemistry and Physics, 2015, 15, 6225-6236.	1.9	38
20	Formaldehyde (HCHO) in air, snow, and interstitial air at Concordia (East Antarctic Plateau) in summer. Atmospheric Chemistry and Physics, 2015, 15, 6689-6705.	1.9	12
21	Atmospheric nitrogen oxides (NO and NO₂) at Dome C, East Antarctica, during the OPALE campaign. Atmospheric Chemistry and Physics, 2015, 15, 7859-7875.	1.9	43
22	The impact of parameterising light penetration into snow on the photochemical production of NO_{<i>x</i>} and OH radicals in snow. Atmospheric Chemistry and Physics, 2015, 15, 7913-7927.	1.9	7
23	Airâ€“snow transfer of nitrate on the East Antarctic Plateau â€“ Part 2: An isotopic model for the interpretation of deep ice-core records. Atmospheric Chemistry and Physics, 2015, 15, 12079-12113.	1.9	33
24	A review of airâ€“ice chemical and physical interactions (AICI): liquids, quasi-liquids, and solids in snow. Atmospheric Chemistry and Physics, 2014, 14, 1587-1633.	1.9	235
25	Large mixing ratios of atmospheric nitrous acid (HONO) at Concordia (East Antarctic Plateau) in summer: a strong source from surface snow?. Atmospheric Chemistry and Physics, 2014, 14, 9963-9976.	1.9	47
26	Measurements of OH and RO₂ radicals at Dome C, East Antarctica. Atmospheric Chemistry and Physics, 2014, 14, 12373-12392.	1.9	50
27	Atmospheric nitric oxide and ozone at the WAIS Divide deep coring site: a discussion of local sources and transport in West Antarctica. Atmospheric Chemistry and Physics, 2013, 13, 8857-8877.	1.9	14
28	Airâ€“snow transfer of nitrate on the East Antarctic Plateau â€“ Part 1: Isotopic evidence for a photolytically driven dynamic equilibrium in summer. Atmospheric Chemistry and Physics, 2013, 13, 6403-6419.	1.9	103
29	The diurnal variability of atmospheric nitrogen oxides (NO and) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 347 Td (NO<sub stability and snow emissions. Atmospheric Chemistry and Physics, 2013, 13, 3045-3062.	1.9	52
30	The Carrington event not observed in most ice core nitrate records. Geophysical Research Letters, 2012, 39, .	1.5	85
31	Snow optical properties at Dome C (Concordia), Antarctica; implications for snow emissions and snow chemistry of reactive nitrogen. Atmospheric Chemistry and Physics, 2011, 11, 9787-9801.	1.9	100
32	A network of autonomous surface ozone monitors in Antarctica: technical description and first results. Atmospheric Measurement Techniques, 2011, 4, 645-658.	1.2	17
33	Geographic variability of nitrate deposition and preservation over the Greenland Ice Sheet. Journal of Geophysical Research, 2009, 114, .	3.3	9
34	Comprehensive isotopic composition of atmospheric nitrate in the Atlantic Ocean boundary layer from 65Â°S to 79Â°N. Journal of Geophysical Research, 2009, 114, .	3.3	156
35	Contrasting atmospheric boundary layer chemistry of methylhydroperoxide (CH₃OOH) and hydrogen peroxide (H₂O₂) above polar snow. Atmospheric Chemistry and Physics, 2009, 9, 3261-3276.	1.9	25
36	Photolysis imprint in the nitrate stable isotope signal in snow and atmosphere of East Antarctica and implications for reactive nitrogen cycling. Atmospheric Chemistry and Physics, 2009, 9, 8681-8696.	1.9	157

#	Article	IF	Citations
37	Spatial and temporal variability in snow accumulation at the West Antarctic Ice Sheet Divide over recent centuries. Journal of Geophysical Research, 2008, 113, .	3.3	65
38	Tracing the Origin and Fate of NO _x in the Arctic Atmosphere Using Stable Isotopes in Nitrate. Science, 2008, 322, 730-732.	6.0	189
39	An overview of snow photochemistry: evidence, mechanisms and impacts. Atmospheric Chemistry and Physics, 2007, 7, 4329-4373.	1.9	554
40	An overview of air-snow exchange at Summit, Greenland: Recent experiments and findings. Atmospheric Environment, 2007, 41, 4995-5006.	1.9	23
41	Climate sensitivity of the century-scale hydrogen peroxide (H2O2) record preserved in 23 ice cores from West Antarctica. Journal of Geophysical Research, 2006, 111, .	3.3	46
42	The International Trans-Antarctic Scientific Expedition (ITASE): an overview. Annals of Glaciology, 2005, 41, 180-185.	2.8	47
43	Snow chemistry across Antarctica. Annals of Glaciology, 2005, 41, 167-179.	2.8	90
44	High-resolution ice cores from US ITASE (West Antarctica): development and validation of chronologies and determination of precision and accuracy. Annals of Glaciology, 2005, 41, 77-84.	2.8	48
45	Snowfall-Driven Growth in East Antarctic Ice Sheet Mitigates Recent Sea-Level Rise. Science, 2005, 308, 1898-1901.	6.0	230
46	Atmospheric hydroperoxides in West Antarctica: Links to stratospheric ozone and atmospheric oxidation capacity. Journal of Geophysical Research, 2005, 110, .	3.3	61
47	Hydrograph separations in a mesoscale mountainous basin at event and seasonal timescales. Water Resources Research, 2002, 38, 31-1-31-14.	1.7	197
48	Investigation of the role of the snowpack on atmospheric formaldehyde chemistry at Summit, Greenland. Journal of Geophysical Research, 2002, 107, ACH 9-1.	3.3	27
49	Measurements of hydrogen peroxide and formaldehyde exchange between the atmosphere and surface snow at Summit, Greenland. Atmospheric Environment, 2002, 36, 2619-2628.	1.9	114
50	Impacts of snowpack emissions on deduced levels of OH and peroxy radicals at Summit, Greenland. Atmospheric Environment, 2002, 36, 2523-2534.	1.9	110