David Fahey

List of Publications by Year in descending order

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259 papers	25,443 citations	9254 74 h-index	8618 146 g-index
286 all docs	286 docs citations	286 times ranked	12927 citing authors

#	Article	IF	Citations
1	Bounding the role of black carbon in the climate system: A scientific assessment. Journal of Geophysical Research D: Atmospheres, 2013, 118, 5380-5552.	1.2	4,319
2	Ozone production in the rural troposphere and the implications for regional and global ozone distributions. Journal of Geophysical Research, 1987, 92, 4191-4207.	3.3	858
3	Aviation and global climate change in the 21st century. Atmospheric Environment, 2009, 43, 3520-3537.	1.9	842
4	Single-particle measurements of midlatitude black carbon and light-scattering aerosols from the boundary layer to the lower stratosphere. Journal of Geophysical Research, 2006, 111, .	3.3	594
5	Evaluation of black carbon estimations in global aerosol models. Atmospheric Chemistry and Physics, 2009, 9, 9001-9026.	1.9	585
6	The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018. Atmospheric Environment, 2021, 244, 117834.	1.9	491
7	The importance of the Montreal Protocol in protecting climate. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 4814-4819.	3.3	417
8	Measurement of the mixing state, mass, and optical size of individual black carbon particles in urban and biomass burning emissions. Geophysical Research Letters, 2008, 35, .	1.5	388
9	Removal of Stratospheric O3 by Radicals: In Situ Measurements of OH, HO2, NO, NO2, ClO, and BrO. Science, 1994, 266, 398-404.	6.0	384
10	Hydrogen Radicals, Nitrogen Radicals, and the Production of O3 in the Upper Troposphere. Science, 1998, 279, 49-53.	6.0	329
11	The large contribution of projected HFC emissions to future climate forcing. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10949-10954.	3.3	319
12	Biomass burning in Siberia and Kazakhstan as an important source for haze over the Alaskan Arctic in April 2008. Geophysical Research Letters, 2009, 36, .	1.5	289
13	The Detection of Large HNO3-Containing Particles in the Winter Arctic Stratosphere. Science, 2001, 291, 1026-1031.	6.0	279
14	An Inter-Comparison of Instruments Measuring Black Carbon Content of Soot Particles. Aerosol Science and Technology, 2007, 41, 295-314.	1.5	276
15	In situ measurements constraining the role of sulphate aerosols in mid-latitude ozone depletion. Nature, 1993, 363, 509-514.	13.7	272
16	Coatings and their enhancement of black carbon light absorption in the tropical atmosphere. Journal of Geophysical Research, 2008, 113, .	3.3	266
17	Reactive nitrogen species in the troposphere: Measurements of NO, NO₂, HNO₃, particulate nitrate, peroxyacetyl nitrate (PAN), O₃, and total reactive odd nitrogen (NO_y) at Niwot Ridge, Colorado. Journal of Geophysical Research, 1986, 91, 9781-9793.	3.3	261
18	Characteristics, sources, and transport of aerosols measured in spring 2008 during the aerosol, radiation, and cloud processes affecting Arctic Climate (ARCPAC) Project. Atmospheric Chemistry and Physics, 2011, 11, 2423-2453.	1.9	259

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19	A Novel Method for Estimating Light-Scattering Properties of Soot Aerosols Using a Modified Single-Particle Soot Photometer. Aerosol Science and Technology, 2007, 41, 125-135.	1.5	258
20	In situ measurements of total reactive nitrogen, total water, and aerosol in a polar stratospheric cloud in the Antarctic. Journal of Geophysical Research, 1989, 94, 11299-11315.	3.3	255
21	Soot Particle Studiesâ€"Instrument Inter-Comparisonâ€"Project Overview. Aerosol Science and Technology, 2010, 44, 592-611.	1.5	228
22	Evaluation of a catalytic reduction technique for the measurement of total reactive odd-nitrogen NO y in the atmosphere. Journal of Atmospheric Chemistry, 1985, 3, 435-468.	1.4	225
23	Reactive nitrogen and its correlation with ozone in the lower stratosphere and upper troposphere. Journal of Geophysical Research, 1993, 98, 8751-8773.	3.3	224
24	Observations of denitrification and dehydration in the winter polar stratospheres. Nature, 1990, 344, 321-324.	13.7	221
25	Evaluation of source gas lifetimes from stratospheric observations. Journal of Geophysical Research, 1997, 102, 25543-25564.	3.3	214
26	The photochemistry of acetone in the upper troposphere: A source of odd-hydrogen radicals. Geophysical Research Letters, 1997, 24, 3177-3180.	1.5	193
27	Dehydration in the lower Antarctic stratosphere during late winter and early spring, 1987. Journal of Geophysical Research, 1989, 94, 11317-11357.	3.3	191
28	Modelled radiative forcing of the direct aerosol effect with multi-observation evaluation. Atmospheric Chemistry and Physics, 2009, 9, 1365-1392.	1.9	187
29	A groundâ€based intercomparison of NO, NO_x, and NO_y measurement techniques. Journal of Geophysical Research, 1987, 92, 14710-14722.	3.3	183
30	Globalâ€scale black carbon profiles observed in the remote atmosphere and compared to models. Geophysical Research Letters, 2010, 37, .	1.5	172
31	An important contribution to springtime Arctic aerosol from biomass burning in Russia. Geophysical Research Letters, 2010, 37, .	1.5	172
32	Emission Measurements of the Concorde Supersonic Aircraft in the Lower Stratosphere. Science, 1995, 270, 70-74.	6.0	165
33	Study of Inlet Materials for Sampling Atmospheric Nitric Acid. Environmental Science & Technology, 1999, 33, 1133-1136.	4.6	165
34	Organic Aerosol Formation Downwind from the Deepwater Horizon Oil Spill. Science, 2011, 331, 1295-1299.	6.0	162
35	Observed OH and HO2in the upper troposphere suggest a major source from convective injection of peroxides. Geophysical Research Letters, 1997, 24, 3181-3184.	1.5	160
36	Airborne gas chromatograph for in situ measurements of long-lived species in the upper troposphere and lower stratosphere. Geophysical Research Letters, 1996, 23, 347-350.	1.5	158

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37	Quantifying Transport Between the Tropical and Mid-Latitude Lower Stratosphere. Science, 1996, 272, 1763-1768.	6.0	157
38	The Detection Efficiency of the Single Particle Soot Photometer. Aerosol Science and Technology, 2010, 44, 612-628.	1.5	151
39	Mathematical treatment of the wall loss of a trace species in denuder and catalytic converter tubes. Analytical Chemistry, 1987, 59, 2753-2759.	3.2	146
40	An estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere. Journal of Geophysical Research, 1994, 99, 5325.	3.3	145
41	Mixing of polar vortex air into middle latitudes as revealed by tracer-tracer scatterplots. Journal of Geophysical Research, 1997, 102, 13119-13134.	3.3	144
42	A Strategy for Process-Oriented Validation of Coupled Chemistryâ€“Climate Models. Bulletin of the American Meteorological Society, 2005, 86, 1117-1134.	1.7	139
43	Preserving Montreal Protocol Climate Benefits by Limiting HFCs. Science, 2012, 335, 922-923.	6.0	139
44	Conversion of nitrogen dioxide, nitric acid, and n-propyl nitrate to nitric oxide by a gold-catalyzed reduction with carbon monoxide. Analytical Chemistry, 1983, 55, 1980-1986.	3.2	134
45	Chemical Loss of Ozone in the Arctic Polar Vortex in the Winter of 1991-1992. Science, 1993, 261, 1146-1149.	6.0	131
46	Distribution of halon-1211 in the upper troposphere and lower stratosphere and the 1994 total bromine budget. Journal of Geophysical Research, 1998, 103, 1513-1526.	3.3	131
47	Measurements of nitric oxide and total reactive nitrogen in the Antarctic stratosphere: Observations and chemical implications. Journal of Geophysical Research, 1989, 94, 16665-16681.	3.3	130
48	Globalâ€scale seasonally resolved black carbon vertical profiles over the Pacific. Geophysical Research Letters, 2013, 40, 5542-5547.	1.5	124
49	Collisional relaxation of vibrationally excited O2+ ions. Journal of Chemical Physics, 1983, 79, 4201-4213.	1.2	121
50	Transport into the northern hemisphere lowermost stratosphere revealed by in situ tracer measurements. Journal of Geophysical Research, 1999, 104, 26565-26580.	3.3	117
51	A diagnostic for denitrification in the winter polar stratospheres. Nature, 1990, 345, 698-702.	13.7	116
52	Intercomparison of NO₂ measurement techniques. Journal of Geophysical Research, 1990, 95, 3579-3597.	3.3	116
53	The Potential for Ozone Depletion in the Arctic Polar Stratosphere. Science, 1991, 252, 1260-1266.	6.0	115
54	Black carbon aerosol size in snow. Scientific Reports, 2013, 3, 1356.	1.6	115

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55	Systematic variations in the concentration of NO_x (NO Plus NO₂) at Niwot Ridge, Colorado. Journal of Geophysical Research, 1990, 95, 1817-1836.	3.3	112
56	Evidence That Nitric Acid Increases Relative Humidity in Low-Temperature Cirrus Clouds. Science, 2004, 303, 516-520.	6.0	110
57	Relationship between peroxyacetyl nitrate and nitrogen oxides in the clean troposphere. Nature, 1985, 318, 347-349.	13.7	108
58	Global distribution of contrail radiative forcing. Geophysical Research Letters, 1999, 26, 1853-1856.	1.5	107
59	Atmospheric emissions from the Deepwater Horizon spill constrain air-water partitioning, hydrocarbon fate, and leak rate. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	107
60	Measurements of the NO_xâ€O₃ photostationary state at Niwot Ridge, Colorado. Journal of Geophysical Research, 1986, 91, 5361-5370.	3.3	106
61	Comparison of MkIV balloon and ER-2 aircraft measurements of atmospheric trace gases. Journal of Geophysical Research, 1999, 104, 26779-26790.	3.3	106
62	Future atmospheric abundances and climate forcings from scenarios of global and regional hydrofluorocarbon (HFC) emissions. Atmospheric Environment, 2015, 123, 200-209.	1.9	105
63	Polar stratospheric cloud processed air and potential voracity in the northern hemisphere lower stratosphere at midâ€latitudes during winter. Journal of Geophysical Research, 1992, 97, 7883-7904.	3.3	100
64	Estimates of total organic and inorganic chlorine in the lower stratosphere from in situ and flask measurements during AASE II. Journal of Geophysical Research, 1995, 100, 3057.	3.3	99
65	Assessing Single Particle Soot Photometer and Integrating Sphere/Integrating Sandwich Spectrophotometer measurement techniques for quantifying black carbon concentration in snow. Atmospheric Measurement Techniques, 2012, 5, 2581-2592.	1.2	96
66	Validation of the Aura Microwave Limb Sounder HNO₃ measurements. Journal of Geophysical Research, 2007, 112, .	3.3	95
67	Airborne observations of regional variation in fluorescent aerosol across the United States. Journal of Geophysical Research D: Atmospheres, 2015, 120, 1153-1170.	1.2	93
68	High-latitude ozone loss outside the Antarctic ozone hole. Nature, 1989, 342, 233-237.	13.7	90
69	Challenges of a lowered U.S. ozone standard. Science, 2015, 348, 1096-1097.	6.0	89
70	The AquaVIT-1 intercomparison of atmospheric water vapor measurement techniques. Atmospheric Measurement Techniques, 2014, 7, 3177-3213.	1.2	88
71	Photochemical partitioning of the reactive nitrogen and chlorine reservoirs in the highâ€latitude stratosphere. Journal of Geophysical Research, 1992, 97, 7905-7923.	3.3	87
72	Rate constants for the reactions of metastable O+ ions with N2 and O2 at collision energies 0.04 to 0.2 eV and the mobilities of these ions at 300 K. Journal of Chemical Physics, 1980, 73, 194-205.	1.2	86

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73	Recent Trends in Global Emissions of Hydrochlorofluorocarbons and Hydrofluorocarbons: Reflecting on the 2007 Adjustments to the Montreal Protocol. Journal of Physical Chemistry A, 2015, 119, 4439-4449.	1.1	84
74	A vortex-scale simulation of the growth and sedimentation of large nitric acid hydrate particles. Journal of Geophysical Research, 2002, 107, SOL 43-1.	3.3	80
75	A microphysics guide to cirrus â€“ Part 2: Climatologies of clouds and humidity from observations. Atmospheric Chemistry and Physics, 2020, 20, 12569-12608.	1.9	80
76	Reaction rate constants for Oâ¯2(H2O)n ions n = 0 to 4, with O3, NO, SO2, and CO2. Journal of Chemical Physics, 1982, 76, 1799-1805.	1.2	79
77	The NASA Airborne Tropical Tropopause Experiment: High-Altitude Aircraft Measurements in the Tropical Western Pacific. Bulletin of the American Meteorological Society, 2017, 98, 129-143.	1.7	79
78	The diurnal variation of hydrogen, nitrogen, and chlorine radicals: Implications for the heterogeneous production of HNO2. Geophysical Research Letters, 1994, 21, 2551-2554.	1.5	76
79	Lagrangian photochemical modeling studies of the 1987 Antarctic spring vortex: 1. Comparison with AAOE observations. Journal of Geophysical Research, 1989, 94, 11529-11558.	3.3	75
80	Bulk properties of isentropic mixing into the tropics in the lower stratosphere. Journal of Geophysical Research, 1996, 101, 9433-9439.	3.3	74
81	In situ observations in aircraft exhaust plumes in the lower stratosphere at midlatitudes. Journal of Geophysical Research, 1995, 100, 3065.	3.3	73
82	High flux beam source of thermal rare-gas metastable atoms. Journal of Physics E: Scientific Instruments, 1980, 13, 381-383.	0.7	71
83	Severe and extensive denitrification in the 1999-2000 Arctic winter stratosphere. Geophysical Research Letters, 2001, 28, 2875-2878.	1.5	71
84	A light-weight, high-sensitivity particle spectrometer for PM2.5 aerosol measurements. Aerosol Science and Technology, 2016, 50, 88-99.	1.5	71
85	Extinction and optical depth of contrails. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	70
86	Reactions of Si+ with H2O and O2 and SiO+ with H2 and D2. Journal of Chemical Physics, 1981, 75, 669-674.	1.2	69
87	The Seasonal Evolution of Reactive Chlorine in the Northern Hemisphere Stratosphere. Science, 1993, 261, 1134-1136.	6.0	69
88	The Arctic polar stratospheric cloud aerosol: Aircraft measurements of reactive nitrogen, total water, and particles. Journal of Geophysical Research, 1992, 97, 7925-7938.	3.3	68
89	Quantifying Stratospheric Ozone in the Upper Troposphere with in Situ Measurements of HCl. Science, 2004, 304, 261-265.	6.0	68
90	Aircraft observations of enhancement and depletion of black carbon mass in the springtime Arctic. Atmospheric Chemistry and Physics, 2010, 10, 9667-9680.	1.9	68

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91	The distribution of hydrogen, nitrogen, and chlorine radicals in the lower stratosphere: Implications for changes in O3due to emission of NOyfrom supersonic aircraft. Geophysical Research Letters, 1994, 21, 2547-2550.	1.5	67
92	UV Absorption Spectrum of the ClO Dimer (Cl₂O₂) between 200 and 420 nm. Journal of Physical Chemistry A, 2009, 113, 13711-13726.	1.1	65
93	Three-dimensional simulations of long-lived tracers using winds from MACCM2. Journal of Geophysical Research, 1997, 102, 21493-21513.	3.3	64
94	Descent and mixing in the 1999â€“2000 northern polar vortex inferred from in situ tracer measurements. Journal of Geophysical Research, 2002, 107, SOL 28-1.	3.3	64
95	Experimental and Theoretical Study of the Atmospheric Chemistry and Global Warming Potential of SO₂F₂. Journal of Physical Chemistry A, 2008, 112, 12657-12666.	1.1	64
96	Performance of an aircraft instrument for the measurement of NOy. Journal of Geophysical Research, 1997, 102, 28663-28671.	3.3	63
97	Nitric acid uptake on subtropical cirrus cloud particles. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	62
98	A comparison of observations and model simulations of NOx/NOyin the lower stratosphere. Geophysical Research Letters, 1999, 26, 1153-1156.	1.5	61
99	Empirical correlations between black carbon aerosol and carbon monoxide in the lower and middle troposphere. Geophysical Research Letters, 2008, 35, .	1.5	60
100	Black carbon aerosol characterization in a remote area of Qinghaiâ€“Tibetan Plateau, western China. Science of the Total Environment, 2014, 479-480, 151-158.	3.9	58
101	Instrumentation and measurement strategy for the NOAA SENEX aircraft campaign as part of the Southeast Atmosphere Study 2013. Atmospheric Measurement Techniques, 2016, 9, 3063-3093.	1.2	58
102	Enhancement of chargeâ€transfer reaction rate constants by vibrational excitation at kinetic energies below 1 eV. Journal of Chemical Physics, 1983, 79, 265-272.	1.2	57
103	A chemical definition of the boundary of the Antarctic ozone hole. Journal of Geophysical Research, 1989, 94, 11437-11448.	3.3	56
104	Measurement of nitrogen oxide fluxes from soils: Intercomparison of enclosure and gradient measurement techniques. Journal of Geophysical Research, 1987, 92, 2165-2171.	3.3	55
105	Redistribution of reactive odd nitrogen in the lower Arctic stratosphere. Geophysical Research Letters, 1990, 17, 453-456.	1.5	55
106	Measurements of total reactive nitrogen during the Airborne Arctic Stratospheric Expedition. Geophysical Research Letters, 1990, 17, 485-488.	1.5	55
107	An analysis of large HNO3-containing particles sampled in the Arctic stratosphere during the winter of 1999/2000. Journal of Geophysical Research, 2002, 107, SOL 41-1.	3.3	55
108	Evaluating the role of NAT, NAD, and liquid H2SO4/H2O/HNO3solutions in Antarctic polar stratospheric cloud aerosol: Observations and implications. Journal of Geophysical Research, 1997, 102, 13255-13282.	3.3	54

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109	The role of ion-molecule reactions in the conversion of N2O5 to HNO3 in the stratosphere. Planetary and Space Science, 1983, 31, 185-191.	0.9	53
110	Calculations of ozone destruction during the 1988/89 Arctic winter. Geophysical Research Letters, 1990, 17, 553-556.	1.5	53
111	Black carbon measurements in the Pearl River Delta region of China. Journal of Geophysical Research, 2011, 116, .	3.3	53
112	In situ measurements of HNO3, NOy, NO, and O3 in the lower stratosphere and upper troposphere. Atmospheric Environment, 2001, 35, 5789-5797.	1.9	52
113	Partitioning of the reactive nitrogen reservoir in the lower stratosphere of the southern hemisphere: Observations and modeling. Journal of Geophysical Research, 1997, 102, 3935-3949.	3.3	50
114	Validation of Aura Microwave Limb Sounder HCl measurements. Journal of Geophysical Research, 2008, 113, .	3.3	50
115	On the chemistry of H2O H2 and meteoritic ions in the mesosphere and lower thermosphere. Planetary and Space Science, 1982, 30, 1117-1126.	0.9	49
116	Subsidence, mixing, and denitrification of Arctic polar vortex air measured during POLARIS. Journal of Geophysical Research, 1999, 104, 26611-26623.	3.3	49
117	Aviation fuel tracer simulation: Model intercomparison and implications. Geophysical Research Letters, 1998, 25, 3947-3950.	1.5	48
118	Evaluation of the role of heterogeneous oxidation of alkenes in the detection of atmospheric acetaldehyde. Atmospheric Environment, 2004, 38, 6017-6028.	1.9	48
119	Flowing afterflow studies of gas phase magnesium ion chemistry. Journal of Chemical Physics, 1981, 75, 3325-3328.	1.2	47
120	Airborne measurements of total reactive odd nitrogen (NO_y). Journal of Geophysical Research, 1992, 97, 9833-9850.	3.3	47
121	NEw observations of the NO_y/N₂O correlation in the lower stratosphere. Geophysical Research Letters, 1993, 20, 2531-2534.	1.5	47
122	Evaluation of UT/LS hygrometer accuracy by intercomparison during the NASA MACPEX mission. Journal of Geophysical Research D: Atmospheres, 2014, 119, 1915-1935.	1.2	47
123	The Measurement of NOx in the Non-Urban Troposphere. , 1988, , 185-215.		47
124	Partitioning of NOyspecies in the summer Arctic stratosphere. Geophysical Research Letters, 1999, 26, 1157-1160.	1.5	46
125	Bond energies of the molecules H2O, SO2, H2O2, and HCl to various atmospheric negative ions. Journal of Chemical Physics, 1984, 81, 2805-2810.	1.2	44
126	Measurements of polar vortex air in the midlatitudes. Journal of Geophysical Research, 1996, 101, 12879-12891.	3.3	44

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127	In situobservations of NOy, O3, and the NOy/O3ratio in the lower stratosphere. Geophysical Research Letters, 1996, 23, 1653-1656.	1.5	44
128	Observations of large reductions in the NO/NOyratio near the mid-latitude tropopause and the role of heterogeneous chemistry. Geophysical Research Letters, 1996, 23, 3223-3226.	1.5	44
129	The mobilities of NOâ^'3, NOâ^'2, NO+, and Clâ^' in N2: A measure of inelastic energy loss. Journal of Chemical Physics, 1983, 78, 435-441.	1.2	43
130	Sources, Sinks, and the Distribution of OH in the Lower Stratosphereâ€. Journal of Physical Chemistry A, 2001, 105, 1543-1553.	1.1	42
131	Modeling the effect of denitrification on Arctic ozone depletion during winter 1999/2000. Journal of Geophysical Research, 2002, 107, SOL 65-1-SOL 65-18.	3.3	42
132	Competitive reaction and quenching of vibrationally excited O+2 ions with SO2, CH4, and H2O. Journal of Chemical Physics, 1984, 81, 2657-2666.	1.2	41
133	Observations of condensation nuclei in the Airborne Antarctic Ozone Experiment: Implications for new particle formation and polar stratospheric cloud formation. Journal of Geophysical Research, 1989, 94, 16437-16448.	3.3	41
134	Nitrogen and chlorine species in the spring Antarctic stratosphere: Comparison of models With Airborne Antarctic Ozone Experiment observations. Journal of Geophysical Research, 1989, 94, 16683-16703.	3.3	41
135	Stratospheric Meteorological Conditions in the Arctic Polar Vortex, 1991 to 1992. Science, 1993, 261, 1143-1146.	6.0	41
136	Measurements of the NOy-N2O correlation in the lower stratosphere: Latitudinal and seasonal changes and model comparisons. Journal of Geophysical Research, 1997, 102, 13193-13212.	3.3	41
137	Technique and theoretical approach for quantifying the hygroscopicity of black-carbon-containing aerosol using a single particle soot photometer. Journal of Aerosol Science, 2015, 81, 110-126.	1.8	41
138	ATMOSPHERIC SCIENCE:Enhanced: Summer in the Stratosphere. Science, 1999, 285, 208-210.	6.0	40
139	Silicon ion chemistry in the ionosphere. Planetary and Space Science, 1981, 29, 307-312.	0.9	39
140	Stratospheric NO and NO2abundances from ATMOS Solar-Occultation Measurements. Geophysical Research Letters, 1996, 23, 2373-2376.	1.5	39
141	A comparison of measurements from ATMOS and instruments aboard the ER-2 aircraft: Tracers of atmospheric transport. Geophysical Research Letters, 1996, 23, 2389-2392.	1.5	39
142	Using chemical ionization mass spectrometry for detection of HNO3, HCl, and ClONO2 in the atmosphere. International Journal of Mass Spectrometry, 2005, 243, 63-70.	0.7	39
143	The NASA Atmospheric Tomography (ATom) Mission: Imaging the Chemistry of the Global Atmosphere. Bulletin of the American Meteorological Society, 2022, 103, E761-E790.	1.7	39
144	Large NAT particle formation by mother clouds: Analysis of SOLVE/THESEO-2000 observations. Geophysical Research Letters, 2002, 29, 52-1.	1.5	38

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145	Recent increases in global HFCâ€23 emissions. Geophysical Research Letters, 2010, 37, .	1.5	38
146	Are models of catalytic removal of O3by HOxaccurate? Constraints from in situ measurements of the OH to HO2ratio. Geophysical Research Letters, 1994, 21, 2539-2542.	1.5	37
147	New photolysis system for NO2measurements in the lower stratosphere. Journal of Geophysical Research, 1994, 99, 20673.	3.3	37
148	The role of sulfur emission in volatile particle formation in jet aircraft exhaust plumes. Geophysical Research Letters, 1997, 24, 389-392.	1.5	37
149	In Situ Measurements of Long-Lived Trace Gases in the Lower Stratosphere by Gas Chromatography. Journal of Atmospheric and Oceanic Technology, 2001, 18, 1195-1204.	0.5	37
150	Diverse policy implications for future ozone and surface UV in a changing climate. Environmental Research Letters, 2016, 11, 064017.	2.2	37
151	Mobilities of several mass-identified positive and negative ions in air. International Journal of Mass Spectrometry and Ion Processes, 1987, 81, 45-65.	1.9	36
152	Comparison of modeled and observed values of NO2and JNO2during the Photochemistry of Ozone Loss in the Arctic Region in Summer (POLARIS) mission. Journal of Geophysical Research, 1999, 104, 26687-26703.	3.3	36
153	A fast-response chemical ionization mass spectrometer for in situ measurements of HNO[sub 3] in the upper troposphere and lower stratosphere. Review of Scientific Instruments, 2000, 71, 3886.	0.6	36
154	Rate constants for the reactions of H2O+ with NO2, O2, NO, C2H4, CO, CH4, and H2 measured at relative kinetic energies 0.04â€“2 eV. Chemical Physics Letters, 1980, 72, 67-70.	1.2	35
155	Background ozone and anthropogenic ozone enhancement at niwot ridge, Colorado. Journal of Atmospheric Chemistry, 1986, 4, 63-80.	1.4	35
156	Studies with nitryl hypochlorite: thermal dissociation rate and catalytic conversion to nitric oxide using an NO/O3 chemiluminescence detector. The Journal of Physical Chemistry, 1990, 94, 644-652.	2.9	35
157	Interpretation of NO_x/NO_y observations from AASEâ€II using a model of chemistry along trajectories. Geophysical Research Letters, 1993, 20, 2507-2510.	1.5	35
158	Measurements of trace gases in the tropical tropopause layer. Atmospheric Environment, 2007, 41, 7253-7261.	1.9	35
159	Collisional vibrational quenching of O2+(v) and other molecular ions in planetary atmospheres. Planetary and Space Science, 1983, 31, 483-487.	0.9	34
160	Characteristics of black carbon aerosol from a surface oil burn during the Deepwater Horizon oil spill. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	34
161	Observational evidence for the role of denitrification in Arctic stratospheric ozone loss. Geophysical Research Letters, 2001, 28, 2879-2882.	1.5	33
162	The evolution of CLO and NO along air parcel trajectories. Geophysical Research Letters, 1993, 20, 2511-2514.	1.5	32

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163	In-situ observations of an Antarctic polar stratospheric cloud: Similarities with Arctic observations. Geophysical Research Letters, 1996, 23, 1913-1916.	1.5	32
164	Preface [to special section on Photochemistry of Ozone Loss in the Arctic Region in Summer (POLARIS)]. Journal of Geophysical Research, 1999, 104, 26481-26495.	3.3	32
165	Balloonborne in situ gas chromatograph for measurements in the troposphere and stratosphere. Journal of Geophysical Research, 2003, 108, .	3.3	32
166	Supersaturations, microphysics and nitric acid partitioning in a cold cirrus cloud observed during CR-AVE 2006: an observationâ€“modelling intercomparison study. Environmental Research Letters, 2008, 3, 035003.	2.2	32
167	Evaluation of a Method to Measure Black Carbon Particles Suspended in Rainwater and Snow Samples. Aerosol Science and Technology, 2013, 47, 1073-1082.	1.5	32
168	The observation of nitric acid-containing particles in the tropical lower stratosphere. Atmospheric Chemistry and Physics, 2006, 6, 601-611.	1.9	30
169	Energy dependence of the rate constant of the reaction N++NO at collision energies 0.04 to 2.5 eV. Journal of Chemical Physics, 1981, 74, 3320-3323.	1.2	29
170	Reactions between neutrals clustered on ions. Journal of Chemical Physics, 1982, 76, 742-743.	1.2	29
171	Lagrangian photochemical modeling studies of the 1987 Antarctic spring vortex: 2. Seasonal trends in ozone. Journal of Geophysical Research, 1989, 94, 16717-16735.	3.3	29
172	A comparison of measurements from ATMOS and instruments aboard the ER-2 aircraft: Halogenated gases. Geophysical Research Letters, 1996, 23, 2393-2396.	1.5	29
173	Steady-state aerosol distributions in the extra-tropical, lower stratosphere and the processes that maintain them. Atmospheric Chemistry and Physics, 2008, 8, 6617-6626.	1.9	29
174	A two-channel, tunable diode laser-based hygrometer for measurement of water vapor and cirrus cloud ice water content in the upper troposphere and lower stratosphere. Atmospheric Measurement Techniques, 2015, 8, 211-224.	1.2	29
175	Calculations of solar shortwave heating rates due to black carbon and ozone absorption using in situ measurements. Journal of Geophysical Research, 2008, 113, .	3.3	28
176	Diagnostic studies of venturi inlets for flow reactors. International Journal of Mass Spectrometry and Ion Physics, 1982, 44, 1-18.	1.3	27
177	Nighttime OClO in the winter Arctic vortex. Journal of Geophysical Research, 2005, 110, .	3.3	27
178	A compact, fast UV photometer for measurement of ozone from research aircraft. Atmospheric Measurement Techniques, 2012, 5, 2201-2210.	1.2	27
179	Observational constraints on the efficiency of dehydration mechanisms in the tropical tropopause layer. Geophysical Research Letters, 2016, 43, 2912-2918.	1.5	27
180	Energy dependence of the Oâˆ’ transfer reactions of O3âˆ’ and CO3âˆ’ with NO and SO2. Journal of Chemical Physics, 1983, 78, 6614-6619.	1.2	26

#	Article	IF	Citations
181	Comment on â€œEffects of Cosmic Rays on Atmospheric Chlorofluorocarbon Dissociation and Ozone Depletionâ€. Physical Review Letters, 2002, 89, 219801; author reply 219802.	2.9	26
182	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
183	Probing the subtropical lowermost stratosphere and the tropical upper troposphere and tropopause layer for inorganic bromine. Atmospheric Chemistry and Physics, 2017, 17, 1161-1186.	1.9	25
184	Silicon negative ion chemistry in the atmosphere-in situ and laboratory measurements. Planetary and Space Science, 1982, 30, 499-506.	0.9	24
185	Nitric oxide measurements in the Arctic winter stratosphere. Geophysical Research Letters, 1990, 17, 489-492.	1.5	24
186	A High-Sensitivity Low-Cost Optical Particle Counter Design. Aerosol Science and Technology, 2013, 47, 137-145.	1.5	24
187	Designing the Climate Observing System of the Future. Earth's Future, 2018, 6, 80-102.	2.4	24
188	Global atmospheric response to emissions from a proposed reusable space launch system. Earth's Future, 2017, 5, 37-48.	2.4	23
189	A calibrated source of N2O5. Atmospheric Environment, 1985, 19, 1883-1890.	1.1	22
190	Constraining the heterogeneous loss of O3on soot particles with observations in jet engine exhaust plumes. Geophysical Research Letters, 1998, 25, 3323-3326.	1.5	22
191	The airborne mass spectrometer AIMS â€“ Part 1: AIMS-H₂O for UTLS water vapor measurements. Atmospheric Measurement Techniques, 2016, 9, 939-953.	1.2	22
192	Condensedâ€phase nitric acid in a tropical subvisible cirrus cloud. Geophysical Research Letters, 2007, 34, .	1.5	21
193	In situ measurements of water uptake by black carbonâ€containing aerosol in wildfire plumes. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1086-1097.	1.2	21
194	Fluorescence calibration method for single-particle aerosol fluorescence instruments. Atmospheric Measurement Techniques, 2017, 10, 1755-1768.	1.2	21
195	In situ measurements of the NO2/NO ratio for testing atmospheric photochemical models. Geophysical Research Letters, 1994, 21, 2555-2558.	1.5	20
196	Weak impact of mixing on chlorine deactivation during SOLVE/THESEO 2000: Lagrangian modeling (CLaMS) versus ER-2 in situ observations. Journal of Geophysical Research, 2003, 108, SOL 67-1.	3.3	20
197	Stratospheric correlation between nitric acid and ozone. Journal of Geophysical Research, 2009, 114, .	3.3	20
198	The spectroscopic foundation of radiative forcing of climate by carbon dioxide. Geophysical Research Letters, 2016, 43, 5318-5325.	1.5	20

#	Article	IF	Citations
199	The role of HOxin super- and subsonic aircraft exhaust plumes. Geophysical Research Letters, 1997, 24, 65-68.	1.5	19
200	Large-scale chemical evolution of the Arctic vortex during the 1999/2000 winter: HALOE/POAM III Lagrangian photochemical modeling for the SAGE III-Ozone Loss and Validation Experiment (SOLVE) campaign. Journal of Geophysical Research, 2002, 107, SOL 60-1-SOL 60-26.	3.3	19
201	Measurement of low-ppm mixing ratios of water vapor in the upper troposphere and lower stratosphere using chemical ionization mass spectrometry. Atmospheric Measurement Techniques, 2013, 6, 1461-1475.	1.2	19
202	A laser-induced fluorescence instrument for aircraft measurements of sulfur dioxide in the upper troposphere and lower stratosphere. Atmospheric Measurement Techniques, 2016, 9, 4601-4613.	1.2	19
203	Balloonâ€borne measurements of total reactive nitrogen, nitric acid, and aerosol in the cold Arctic stratosphere. Geophysical Research Letters, 1990, 17, 437-440.	1.5	18
204	Heating rates and surface dimming due to black carbon aerosol absorption associated with a major U.S. city. Geophysical Research Letters, 2009, 36, .	1.5	17
205	Corrigendum to "Evaluation of black carbon estimations in global aerosol models" published in Atmos. Chem. Phys., 9, 9001-9026, 2009. Atmospheric Chemistry and Physics, 2010, 10, 79-81.	1.9	17
206	Scales of variability of black carbon plumes over the Pacific Ocean. Geophysical Research Letters, 2012, 39, .	1.5	17
207	Spread of denitrification from 1987 Antarctic and 1988â€“1989 Arctic stratospheric vortices. Journal of Geophysical Research, 1994, 99, 20573.	3.3	16
208	Ozone destruction and production rates between spring and autumn in the Arctic stratosphere. Geophysical Research Letters, 2000, 27, 2605-2608.	1.5	16
209	Catalytic oxidation of H₂ on platinum: a robust method for generating low mixing ratio H₂O standards. Atmospheric Measurement Techniques, 2011, 4, 2059-2064.	1.2	16
210	The role of sulfur dioxide in stratospheric aerosol formation evaluated by using in situ measurements in the tropical lower stratosphere. Geophysical Research Letters, 2017, 44, 4280-4286.	1.5	16
211	The polar stratospheric cloud event of January 24: Part 2, PHotochemistry. Geophysical Research Letters, 1990, 17, 541-544.	1.5	15
212	A case study of the Mountain Lee Wave Event of January 6, 1992. Geophysical Research Letters, 1993, 20, 2551-2554.	1.5	15
213	Measurements of large stratospheric particles in the Arctic polar vortex. Journal of Geophysical Research, 2003, 108, .	3.3	15
214	Interpretation of aircraft measurements of NO, ClO, and O₃ in the lower stratosphere. Journal of Geophysical Research, 1990, 95, 18597-18609.	3.3	14
215	Vertical transport rates in the stratosphere in 1993 from observations or CO2, N2O and CH4. Geophysical Research Letters, 1994, 21, 2571-2574.	1.5	14
216	A scaling analysis of ER-2 data in the inner Arctic vortex during January-March 2000. Journal of Geophysical Research, 2002, 107, SOL 49-1-SOL 49-19.	3.3	14

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217	Global observations of HNO₃ from the High Resolution Dynamics Limb Sounder (HIRDLS): First results. Journal of Geophysical Research, 2008, 113, .	3.3	14
218	OH in the tropical upper troposphere and its relationships to solar radiation and reactive nitrogen. Journal of Atmospheric Chemistry, 2014, 71, 55-64.	1.4	14
219	Magnesium ion chemistry in the stratosphere. Planetary and Space Science, 1981, 29, 479-481.	0.9	13
220	Influence of Antarctic denitrification on two-dimensional model NOy/N2O correlations in the lower stratosphere. Journal of Geophysical Research, 1997, 102, 13183-13192.	3.3	13
221	The emission and chemistry of reactive nitrogen species in the plume of an Athena II solid-fuel rocket motor. Geophysical Research Letters, 2002, 29, 34-1-34-4.	1.5	13
222	Seasonal variability of black carbon mass in the tropical tropopause layer. Geophysical Research Letters, 2011, 38, .	1.5	12
223	Observations of high level of ozone at Qinghai Lake basin in the northeastern Qinghai-Tibetan Plateau, western China. Journal of Atmospheric Chemistry, 2015, 72, 19-26.	1.4	12
224	A xenon ion pumped blue dye laser. IEEE Journal of Quantum Electronics, 1978, 14, 220-221.	1.0	11
225	Rate constant for the reaction C⁺ + CO₂ at collision energies 0.04 to 2.5eV. Geophysical Research Letters, 1981, 8, 1115-1117.	1.5	11
226	Temperature dependence of the threeâ€body association of Clâ¯, NOâ¯2, and NOâ¯3 with SO2. Journal of Chemical Physics, 1984, 81, 2696-2698.	1.2	11
227	Measurements of relative humidity in a persistent contrail. Atmospheric Environment, 2006, 40, 1590-1600.	1.9	11
228	Evaluation of a Perpendicular Inlet for Airborne Sampling of Interstitial Submicron Black-Carbon Aerosol. Aerosol Science and Technology, 2013, 47, 1066-1072.	1.5	11
229	Highâ€flux beam source of fast neutral helium. Review of Scientific Instruments, 1978, 49, 503-506.	0.6	10
230	Computer-controlled Teflon flow control valve. Review of Scientific Instruments, 1999, 70, 4732-4733.	0.6	10
231	A Chemical Ionization Mass Spectrometer for Ground-Based Measurements of Nitric Acid. Journal of Atmospheric and Oceanic Technology, 2006, 23, 1104-1113.	0.5	10
232	Mobilities of N+ ions in helium and argon. Journal of Chemical Physics, 1981, 74, 2080-2081.	1.2	9
233	NOypartitioning from measurements of nitrogen and hydrogen radicals in the upper troposphere. Geophysical Research Letters, 1999, 26, 51-54.	1.5	9
234	Constraints on N2O sinks inferred from observed tracer correlations in the lower stratosphere. Global Biogeochemical Cycles, 1999, 13, 737-742.	1.9	9

#	Article	IF	Citations
235	Laboratory evaluation of the effect of nitric acid uptake on frost point hygrometer performance. Atmospheric Measurement Techniques, 2011, 4, 289-296.	1.2	9
236	Persistent Waterâ€“Nitric Acid Condensate with Saturation Water Vapor Pressure Greater than That of Hexagonal Ice. Journal of Physical Chemistry A, 2016, 120, 1431-1440.	1.1	9
237	Thermal decomposition of trans-chloro(2-allylphenyl)bis(triethylphospine)nickel(II). Journal of Organometallic Chemistry, 1974, 82, 127-137.	0.8	8
238	Excitation of Cd, Zn, and Sr by a beam of active nitrogen. Journal of Chemical Physics, 1979, 71, 2840.	1.2	8
239	Total Penning ionization cross sections of Cd and Zn for He(2â€‰3S1) atoms. Journal of Chemical Physics, 1980, 72, 2310-2313.	1.2	8
240	Role of NOyas a diagnostic of small-scale mixing in a denitrified polar vortex. Journal of Geophysical Research, 2002, 107, ACL 21-1.	3.3	8
241	Dissociative excitation of HgBr2 in collisions with a beam of metastable nitrogen. Journal of Chemical Physics, 1980, 72, 6318-6319.	1.2	7
242	Injection-locked dye laser pumped by a xenon-ion laser. IEEE Journal of Quantum Electronics, 1980, 16, 9-10.	1.0	7
243	Quantifying uptake of HNO3and H2O by alumina particles in Athena-2 rocket plume. Journal of Geophysical Research, 2003, 108, .	3.3	7
244	Stratospheric Aerosol Sampling: Effect of a Blunt-Body Housing on Inlet Sampling Characteristics. Aerosol Science and Technology, 2004, 38, 1080-1090.	1.5	7
245	Correction to â€œGlobal-scale black carbon profiles observed in the remote atmosphere and compared to modelsâ€• Geophysical Research Letters, 2010, 37, n/a-n/a.	1.5	7
246	Hanle lifetime measurements of SrI 1P1 and CaI 1P1 levels excited by a neutral beam of 1 1S0 helium atoms. Physics Letters, Section A: General, Atomic and Solid State Physics, 1979, 74, 405-406.	0.9	6
247	Trajectory studies of large HNO3-containing PSC particles in the Arctic: Evidence for the role of NAT. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	6
248	The Hanle effect in Penning-excited ions. Journal of Physics B: Atomic and Molecular Physics, 1979, 12, L619-L622.	1.6	5
249	Mobilities of various massâ€identified positive ions in helium, neon, and argon. Journal of Chemical Physics, 1983, 79, 1974-1976.	1.2	5
250	Application of the NO/O 3 chemiluminescence technique to measurements of reactive nitrogen species in the stratosphere. , 1991, , .		5
251	JNO2at high solar zenith angles in the lower stratosphere. Geophysical Research Letters, 2001, 28, 2405-2408.	1.5	5
252	Relating inferred HNO3flux values to the denitrification of the 1999-2000 Arctic vortex. Geophysical Research Letters, 2002, 29, 63-1-63-4.	1.5	4

#	Article	IF	Citations
253	Alignment of ions in Penning collisions. Physical Review A, 1979, 20, 1372-1375.	1.0	3
254	Note: Compact, two-dimension translatable slit aperture. Review of Scientific Instruments, 2013, 84, 116103.	0.6	3
255	A Novel Networkâ€Based Approach to Determining Measurement Representation Error for Model Evaluation of Aerosol Microphysical Properties. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	3
256	Non-statistical excitation of the magnetic substates of the 1P1 level of group II metal atoms in collision with 800 eV helium atoms. Physics Letters, Section A: General, Atomic and Solid State Physics, 1978, 65, 215-216.	0.9	2
257	Correction to â€œNitric acid uptake on subtropical cirrus cloud particlesâ€• Journal of Geophysical Research, 2004, 109, .	3.3	2
258	Limited impact of sulfate-driven chemistry on black carbon aerosol aging in power plant plumes. AIMS Environmental Science, 2018, 5, 195-215.	0.7	1
259	Correction to â€œRelating inferred HNO3flux values to the denitrification of the 1999â€“2000 Arctic vortexâ€•by M. J. Northway et al.. Geophysical Research Letters, 2002, 29, 31-1.	1.5	0