Hideaki Nakajima

List of Publications by Year
in descending order

93 papers	2,656 citations	318942 23 h-index	263392 45 g-index
111 all docs	111 docs citations	111 times ranked	2564 citing authors

#	Article	IF	Citations
1	First ground-based Fourier transform infrared (FTIR) spectrometer observations of HFC-23 at Rikubetsu, Japan, and Syowa Station, Antarctica. Atmospheric Measurement Techniques, 2021, 14, 5955-5976.	1.2	1
2	Chlorine partitioning near the polar vortex edge observed with ground-based FTIR and satellites at Syowa Station, Antarctica, in 2007 and 2011. Atmospheric Chemistry and Physics, 2020, 20, 1043-1074.	1.9	15
3	The recent increase of atmospheric methane from 10 years of ground-based NDACC FTIR observations since 2005. Atmospheric Chemistry and Physics, 2017, 17, 2255-2277.	1.9	33
4	Determining an Effective UV Radiation Exposure Time for Vitamin D Synthesis in the Skin Without Risk to Health: Simplified Estimations from UV Observations. Photochemistry and Photobiology, 2016, 92, 863-869.	1.3	20
5	Polar stratospheric cloud evolution and chlorine activation measured by CALIPSO and MLS, and modeled by ATLAS. Atmospheric Chemistry and Physics, 2016, 16, 3311-3325.	1.9	15
6	Vortex-wide chlorine activation by a mesoscale PSC event in the Arctic winter of 2009/10. Atmospheric Chemistry and Physics, 2016, 16, 4569-4577.	1.9	7
7	An evaluation of IASI-NH₃ with ground-based Fourier transform infrared spectroscopy measurements. Atmospheric Chemistry and Physics, 2016, 16, 10351-10368.	1.9	56
8	Brewer, SAOZ and Ozonesonde Observations in Siberia. Atmosphere - Ocean, 2015, 53, 14-18.	0.6	6
9	Surface ocean CO₂ in 1990â€“2011 modelled using a feedâ€forward neural network. Geoscience Data Journal, 2015, 2, 47-51.	1.8	16
10	Past changes in the vertical distribution of ozone â€“ Part 1: Measurement techniques, uncertainties and availability. Atmospheric Measurement Techniques, 2014, 7, 1395-1427.	1.2	67
11	Recent Northern Hemisphere stratospheric HCl increase due to atmospheric circulation changes. Nature, 2014, 515, 104-107.	13.7	110
12	Linking Carbon Dioxide Variability at Hateruma Station to East Asia Emissions by Bayesian Inversion. Geophysical Monograph Series, 2013, , 163-172.	0.1	2
13	Observed and simulated time evolution of HCl, ClONO₂, and HF total column abundances. Atmospheric Chemistry and Physics, 2012, 12, 3527-3556.	1.9	72
14	Unprecedented Arctic ozone loss in 2011. Nature, 2011, 478, 469-475.	13.7	572
15	Validation of water vapour profiles (version 13) retrieved by the IMK/IAA scientific retrieval processor based on full resolution spectra measured by MIPAS on board Envisat. Atmospheric Measurement Techniques, 2009, 2, 379-399.	1.2	28
16	Longitudinally Dependent Ozone Increase in the Antarctic Polar Vortex Revealed by Balloon and Satellite Observations. Journals of the Atmospheric Sciences, 2009, 66, 1807-1820.	0.6	23
17	Evaluation of CLaMS, KASIMA and ECHAM5/MESSy1 simulations in the lower stratosphere using observations of Odin/SMR and ILAS/ILAS-II. Atmospheric Chemistry and Physics, 2009, 9, 5759-5783.	1.9	7
18	Line shape of the far-wing beyond the band head of the CO2 Î½3 band. Journal of Molecular Spectroscopy, 2008, 252, 185-189.	0.4	4

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19	Seasonal cycle of averages of nitrous oxide and ozone in the Northern and Southern Hemisphere polar, midlatitude, and tropical regions derived from ILAS/ILASâ€II and Odin/SMR observations. Journal of Geophysical Research, 2008, 113, .	3.3	5
20	Technical Note: Intercomparison of ILAS-II version 2 and 1.4 trace species with MIPAS-B measurements. Atmospheric Chemistry and Physics, 2008, 8, 1119-1126.	1.9	12
21	Intercomparison of ILAS-II version 1.4 and version 2 target parameters with MIPAS-Envisat measurements. Atmospheric Chemistry and Physics, 2008, 8, 825-843.	1.9	12
22	Validation of nitric acid retrieved by the IMK-IAA processor from MIPAS/ENVISAT measurements. Atmospheric Chemistry and Physics, 2007, 7, 721-738.	1.9	31
23	Validation of MIPAS HNO₃ operational data. Atmospheric Chemistry and Physics, 2007, 7, 4905-4934.	1.9	48
24	Tangent height registration method for the Version 14 data retrieval algorithm of the solar occultation sensor ILAS-II. Applied Optics, 2007, 46, 7196.	2.1	5
25	Energetic particle precipitation effects on the Southern Hemisphere stratosphere in 1992â€“2005. Journal of Geophysical Research, 2007, 112, .	3.3	186
26	An improved measure of ozone depletion in the Antarctic stratosphere. Journal of Geophysical Research, 2007, 112, .	3.3	27
27	Impact of mesospheric intrusions on ozoneâ€tracer relations in the stratospheric polar vortex. Journal of Geophysical Research, 2007, 112, .	3.3	18
28	Temporary Denitrification in the Antarctic Stratosphere as Observed by ILAS-II in June 2003. Scientific Online Letters on the Atmosphere, 2007, 3, 137-140.	0.6	0
29	Ozone profiles in the high-latitude stratosphere and lower mesosphere measured by the Improved Limb Atmospheric Spectrometer (ILAS)-II: Comparison with other satellite sensors and ozonesondes. Journal of Geophysical Research, 2006, 111, .	3.3	24
30	Validation of stratospheric nitric acid profiles observed by Improved Limb Atmospheric Spectrometer (ILAS)â€“II. Journal of Geophysical Research, 2006, 111, .	3.3	24
31	Chemical ozone loss and related processes in the Antarctic winter 2003 based on Improved Limb Atmospheric Spectrometer (ILAS)â€“II observations. Journal of Geophysical Research, 2006, 111, .	3.3	24
32	Intercomparison and validation of ILAS-II version 1.4 target parameters with MIPAS-B measurements. Journal of Geophysical Research, 2006, 111, .	3.3	32
33	Intercomparison of ILAS-II version 1.4 aerosol extinction coefficient at 780 nm with SAGE II, SAGE III, and POAM III. Journal of Geophysical Research, 2006, 111, .	3.3	9
34	Characteristics and performance of the Improved Limb Atmospheric Spectrometer-II (ILAS-II) on board the ADEOS-II satellite. Journal of Geophysical Research, 2006, 111, .	3.3	34
35	Monthly averages of nitrous oxide and ozone for the Northern and Southern Hemisphere high latitudes: A â€œ1-year climatologyâ€•derived from ILAS/ILAS-II observations. Journal of Geophysical Research, 2006, 111, .	3.3	8
36	Validation of ILAS-II version 1.4 O3, HNO3, and temperature data through comparison with ozonesonde, ground-based FTS, and lidar measurements in Alaska. Journal of Geophysical Research, 2006, 111, .	3.3	9

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37	Measurements of ClONO2by the Improved Limb Atmospheric Spectrometer (ILAS) in high-latitude stratosphere: New products using version 6.1 data processing algorithm. Journal of Geophysical Research, 2006, 111, .	3.3	17
38	Polar stratospheric clouds observed by the ILAS-II in the Antarctic region: Dual compositions and variation of compositions during June to August of 2003. Journal of Geophysical Research, 2006, 111, .	3.3	14
39	Assimilation of ozone profiles from the Improved Limb Atmospheric Spectrometer-II: Study of Antarctic ozone. Journal of Geophysical Research, 2006, 111, .	3.3	11
40	Validation of the Improved Limb Atmospheric Spectrometer-II (ILAS-II) Version 1.4 nitrous oxide and methane profiles. Journal of Geophysical Research, 2006, 111, .	3.3	14
41	Comparison of ILAS-II and ground-based FTIR measurements of O3, HNO3, N2O, and CH4over Kiruna, Sweden. Journal of Geophysical Research, 2006, 111, .	3.3	19
42	ILAS data processing for stratospheric gas and aerosol retrievals with aerosol physical modeling: Methodology and validation of gas retrievals. Journal of Geophysical Research, 2006, 111, .	3.3	6
43	Development of tracer relations and chemical ozone loss during the setup phase of the polar vortex. Journal of Geophysical Research, 2006, 111, .	3.3	19
44	Preface to special section on ILAS-II: The Improved Limb Atmospheric Spectrometerâ€“II. Journal of Geophysical Research, 2006, 111, .	3.3	7
45	Spectral line parameters for CO2 bands in the 4.8- to 5.3-Î¼m region. Journal of Molecular Spectroscopy, 2006, 239, 1-10.	0.4	20
46	Variation in PSC Occurrence Observed with ILAS-II over the Antarctic in 2003. Scientific Online Letters on the Atmosphere, 2006, 2, 72-75.	0.6	5
47	Retrieval of trace gases from aerosol-influenced infrared transmission spectra observed by low-spectral-resolution Fourier-transform spectrometers. Applied Optics, 2005, 44, 455.	2.1	2
48	Simultaneous stratospheric gas and aerosol retrievals from broadband infrared occultation measurements. Applied Optics, 2005, 44, 4775.	2.1	8
49	Simultaneous stratospheric gas and aerosol retrievals from broadband infrared occultation measurements: erratum. Applied Optics, 2005, 44, 6031.	2.1	1
50	Odin/SMR limb observations of stratospheric trace gases: Validation of N2O. Journal of Geophysical Research, 2005, 110, .	3.3	46
51	Characterization of stratospheric liquid ternary solution aerosol from broadband infrared extinction measurements. Journal of Geophysical Research, 2005, 110, .	3.3	3
52	A comparative study of stratospheric temperatures between ILAS-II and other data. , 2004, , .		5
53	Absorption line parameter measurements of N2O band near 8Î¼m. Journal of Molecular Spectroscopy, 2004, 228, 213-215.	0.4	2
54	Validation of CFC-12 measurements from the Improved Limb Atmospheric Spectrometer (ILAS) with the version 6.0 retrieval algorithm. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	17

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55	Monthly averaged ozone and nitrous oxide from the Improved Limb Atmospheric Spectrometer (ILAS) in the Northern and Southern Hemisphere polar regions. Journal of Geophysical Research, 2004, 109, .	3.3	11
56	Current status and early results of the ILAS-II onboard the ADEOS-II Satellite. , 2004, , .		3
57	Validation and data characteristics of nitrous oxide and methane profiles observed by the Improved Limb Atmospheric Spectrometer (ILAS) and processed with the Version 5.20 algorithm. Journal of Geophysical Research, 2003, 108, .	3.3	21
58	An evaluation of CO2observations with Solar Occultation FTS for Inclined-Orbit Satellite sensor for surface source inversion. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	41
59	A Lagrangian method to study stratospheric nitric acid variations in the polar regions as measured by the Improved Limb Atmospheric Spectrometer. Journal of Geophysical Research, 2003, 108, .	3.3	12
60	Relationship between denitrification and hydrate saturations: a comparison of ILAS observations with nucleation models. , 2003, , .		0
61	Validation of version 5.20 ILAS HNO3, CH4, N2O, O3, and NO2using ground-based measurements at Arrival Heights and Kiruna. Journal of Geophysical Research, 2002, 107, ILS 5-1.	3.3	18
62	Validation of ozone measurements from the Improved Limb Atmospheric Spectrometer. Journal of Geophysical Research, 2002, 107, ILS 9-1.	3.3	34
63	Tangent height registration for the solar occultation satellite sensor ILAS: A new technique for Version 5.20 products. Journal of Geophysical Research, 2002, 107, ILS 12-1.	3.3	17
64	Stratospheric ozone loss in the 1996/1997 Arctic winter: Evaluation based on multiple trajectory analysis for double-sounded air parcels by ILAS. Journal of Geophysical Research, 2002, 107, ILS 7-1.	3.3	24
65	Improved Limb Atmospheric Spectrometer (ILAS) data retrieval algorithm for Version 5.20 gas profile products. Journal of Geophysical Research, 2002, 107, ILS 13-1.	3.3	61
66	Spectroscopic measurements of tropospheric CO, C2H6, C2H2, and HCN in northern Japan. Journal of Geophysical Research, 2002, 107, ACH 2-1.	3.3	95
67	Validation and data characteristics of water vapor profiles observed by the Improved Limb Atmospheric Spectrometer (ILAS) and processed with the version 5.20 algorithm. Journal of Geophysical Research, 2002, 107, ILS 14-1.	3.3	26
68	Variability of polar stratospheric water vapor observed by ILAS. Journal of Geophysical Research, 2002, 107, ILS 11-1.	3.3	10
69	Validation of NO2and HNO3measurements from the Improved Limb Atmospheric Spectrometer (ILAS) with the version 5.20 retrieval algorithm. Journal of Geophysical Research, 2002, 107, ILS 3-1.	3.3	29
70	Characteristics and performance of the Improved Limb Atmospheric Spectrometer (ILAS) in orbit. Journal of Geophysical Research, 2002, 107, ILS 10-1.	3.3	32
71	Satellite observation of dehydration in the Arctic Polar stratosphere. Geophysical Research Letters, 2002, 29, 25-1-25-4.	1.5	14
72	Low-N2O Air Masses after the Breakdown of the Arctic Polar Vortex in 1997 Simulated by the CCSR/NIES Nudging CTM.. Journal of the Meteorological Society of Japan, 2002, 80, 451-463.	0.7	11

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73	<title>Solar-occultation FTS for inclined-orbit satellite (SOFIS): scientific requirements and current status of development</title>. , 2001, , .		3
74	<title>Temperature and pressure retrievals from O2 A-band absorption measurements made by ILAS: retrieval algorithm and error analyses</title>. , 2001, 4150, 94.		11
75	<title>ILAS-II instrument and data processing system for stratospheric ozone layer monitoring</title>. , 2001, 4150, 106.		9
76	Arctic polar stratospheric clouds observed with the Improved Limb Atmospheric Spectrometer during winter 1996/1997. Journal of Geophysical Research, 2000, 105, 24715-24730.	3.3	26
77	ILAS observations of chemical ozone loss in the Arctic vortex during early spring 1997. Geophysical Research Letters, 2000, 27, 213-216.	1.5	25
78	Balloon-Borne Optical Counter for in Situ Aerosol Measurements. Journal of Atmospheric Chemistry, 1999, 32, 183-204.	1.4	11
79	Assessment of the Uncertainties in the NO2 and O3 Measurements by Visible Spectrometers. Journal of Atmospheric Chemistry, 1999, 32, 121-145.	1.4	13
80	Validation of ILAS Version 3.10 ozone with ozonesonde measurements. Geophysical Research Letters, 1999, 26, 831-834.	1.5	23
81	Denitrification observed inside the Arctic vortex in February 1995. Journal of Geophysical Research, 1998, 103, 16221-16233.	3.3	44
82	Improved limb atmospheric spectrometer (ILAS): validation and preliminary scientific results. , 1998, , .		0
83	Carbon monoxide column abundances and tropospheric concentrations retrieved from high resolution ground-based infrared solar spectra at 43.5Â°N over Japan. Journal of Geophysical Research, 1997, 102, 23403-23411.	3.3	16
84	Impact of lightning and convection on reactive nitrogen in the tropical free troposphere. Journal of Geophysical Research, 1997, 102, 28367-28384.	3.3	21
85	Reactive nitrogen and its correlation with O3and CO over the Pacific in winter and early spring. Journal of Geophysical Research, 1997, 102, 28385-28404.	3.3	25
86	Retrieval of vertical profiles of ozone from high-resolution infrared solar spectra at Rikubetsu, Japan. Journal of Geophysical Research, 1997, 102, 29981-29990.	3.3	11
87	Accuracy of total ozone column amounts observed with solar infrared spectroscopy. Geophysical Research Letters, 1997, 24, 77-80.	1.5	4
88	Profiles and partitioning of reactive nitrogen over the Pacific Ocean in winter and early spring. Journal of Geophysical Research, 1997, 102, 28405-28424.	3.3	68
89	Performance of an aircraft instrument for the measurement of NOy. Journal of Geophysical Research, 1997, 102, 28663-28671.	3.3	63
90	Aircraft measurements of total reactive nitrogen and ozone over the Western Pacific in late autumn and winter. Atmospheric Environment, 1996, 30, 1631-1640.	1.9	5

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91	Observations of thermospheric wind velocities and temperatures by the use of a Fabryâ€“Perot Doppler imaging system at Syowa Station, Antarctica. Applied Optics, 1995, 34, 8382.	2.1	27
92	Ground-based measurements of column amounts of NO2over Syowa Station, Antarctica. Journal of Geophysical Research, 1994, 99, 14535.	3.3	13
93	Characteristics of Suprathermal Electron Bursts Observed by the DMSP-F6/F7 Satellites in the Diffuse Aurora Region.. Journal of Geomagnetism and Geoelectricity, 1993, 45, 1-22.	0.8	0