

# Chris Boone

## List of Publications by Year in descending order

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87  
papers

5,296  
citations

147566

31  
h-index

102304

66  
g-index

88  
all docs

88  
docs citations

88  
times ranked

3119  
citing authors

#	ARTICLE	IF	CITATIONS
1	Atmospheric Chemistry Experiment (ACE): Mission overview. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	768
2	Asian Monsoon Transport of Pollution to the Stratosphere. <i>Science</i> , 2010, 328, 611-613.	6.0	406
3	Retrievals for the atmospheric chemistry experiment Fourier-transform spectrometer. <i>Applied Optics</i> , 2005, 44, 7218.	2.1	377
4	Validation of the Aura Microwave Limb Sounder temperature and geopotential height measurements. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	370
5	Validation of the Aura Microwave Limb Sounder middle atmosphere water vapor and nitrous oxide measurements. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	255
6	Recommended isolated-line profile for representing high-resolution spectroscopic transitions (IUPAC) $T_j$ $E_{TQ}^0$ $O$ $O$ $rgBT$ / $Overlock$ $10$ $Tf$	0.9	225
7	Enhanced NO <sub>x</sub> in 2006 linked to strong upper stratospheric Arctic vortex. <i>Geophysical Research Letters</i> , 2006, 33, n/a-n/a.	1.5	152
8	Solar occultation satellite data and derived meteorological products: Sampling issues and comparisons with Aura Microwave Limb Sounder. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	149
9	NO <sub>x</sub> descent in the Arctic middle atmosphere in early 2009. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	143
10	ACE-FTS observation of a young biomass burning plume: first reported measurements of C <sub>2</sub> H <sub>2</sub> , C <sub>3</sub> H <sub>2</sub> , H <sub>2</sub> O, H <sub>2</sub> O <sub>2</sub> , O <sub>3</sub> , H <sub>2</sub> CO, CO, and PAN by infrared occultation from space. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 5437-5446.	1.9	119
11	High Resolution Dynamics Limb Sounder: Experiment overview, recovery, and validation of initial temperature data. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	114
12	A global view of the extratropical tropopause transition layer from Atmospheric Chemistry Experiment Fourier Transform Spectrometer O <sub>3</sub> , H <sub>2</sub> O, and CO. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	111
13	Validation of the Aura Microwave Limb Sounder HNO <sub>3</sub> measurements. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	95
14	A study of stratospheric chlorine partitioning based on new satellite measurements and modeling. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	88
15	Global variations of HDO and HDO/H <sub>2</sub> O ratios in the upper troposphere and lower stratosphere derived from ACE-FTS satellite measurements. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	72
16	Satellite boreal measurements over Alaska and Canada during June–July 2004: Simultaneous measurements of upper tropospheric CO, C <sub>2</sub> H <sub>6</sub> , HCN, CH <sub>3</sub> Cl, CH <sub>4</sub> , C <sub>2</sub> H <sub>2</sub> , CH <sub>3</sub> OH, HCOOH, OCS, and SF <sub>6</sub> mixing ratios. <i>Global Biogeochemical Cycles</i> , 2007, 21, .	1.9	69
17	Observations of increasing carbon dioxide concentration in Earth's thermosphere. <i>Nature Geoscience</i> , 2012, 5, 868-871.	5.4	68
18	Global distributions of carbonyl sulfide in the upper troposphere and stratosphere. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	59

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19	Variability in HDO/H <sub>2</sub> O abundance ratios in the tropical tropopause layer. Journal of Geophysical Research, 2007, 112, .	3.3	55
20	A global inventory of stratospheric chlorine in 2004. Journal of Geophysical Research, 2006, 111, .	3.3	53
21	Atmospheric Chemistry Experiment (ACE) measurements of elevated Southern Hemisphere upper tropospheric CO, C <sub>2</sub> H <sub>6</sub> , HCN, and C <sub>2</sub> H <sub>2</sub> mixing ratios from biomass burning emissions and long-range transport. Geophysical Research Letters, 2005, 32, .	1.5	52
22	Atmospheric Chemistry Experiment (ACE) Arctic stratospheric measurements of NO <sub>x</sub> during February and March 2004: Impact of intense solar flares. Geophysical Research Letters, 2005, 32, .	1.5	50
23	Estimation of stratospheric age spectrum from chemical tracers. Journal of Geophysical Research, 2005, 110, .	3.3	50
24	Validation of Aura Microwave Limb Sounder HCl measurements. Journal of Geophysical Research, 2008, 113, .	3.3	50
25	On the stratospheric chemistry of midlatitude wildfire smoke. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2117325119.	3.3	45
26	Measurements of O <sub>3</sub> , NO <sub>2</sub> and Temperature during the 2004 Canadian Arctic ACE Validation Campaign. Geophysical Research Letters, 2005, 32, .	1.5	43
27	Severe Arctic ozone loss in the winter 2004/2005: observations from ACE-FTS. Geophysical Research Letters, 2006, 33, .	1.5	43
28	First space-based observations of formic acid (HCOOH): Atmospheric Chemistry Experiment austral spring 2004 and 2005 Southern Hemisphere tropical-mid-latitude upper tropospheric measurements. Geophysical Research Letters, 2006, 33, .	1.5	42
29	Co-located ACE-FTS and Odin/SMR stratospheric-mesospheric CO 2004 measurements and comparison with a GCM. Geophysical Research Letters, 2005, 32, .	1.5	39
30	Observation of sulfate aerosols and SO <sub>2</sub> from the Sarychev volcanic eruption using data from the Atmospheric Chemistry Experiment (ACE). Journal of Geophysical Research, 2012, 117, .	3.3	39
31	ACE-FTS version 3.0 data set: validation and data processing update. Annals of Geophysics, 2014, 56, .	0.5	39
32	The photochemistry of carbon monoxide in the stratosphere and mesosphere evaluated from observations by the Microwave Limb Sounder on the Aura satellite. Journal of Geophysical Research, 2010, 115, .	3.3	38
33	Quantifying Arctic ozone loss during the 2004–2005 winter using satellite observations and a chemical transport model. Journal of Geophysical Research, 2007, 112, .	3.3	37
34	Wildfire smoke destroys stratospheric ozone. Science, 2022, 375, 1292-1295.	6.0	37
35	Trends of HF, HCl, CCl <sub>2</sub> F <sub>2</sub> , CCl <sub>3</sub> F, CHClF <sub>2</sub> (HCFC-22), and SF <sub>6</sub> in the lower stratosphere from Atmospheric Chemistry Experiment (ACE) and Atmospheric Trace Molecule Spectroscopy (ATMOS) measurements near 30°N latitude. Geophysical Research Letters, 2005, 32, .	1.5	36
36	Stratospheric abundances of water and methane based on ACE-FTS measurements. Geophysical Research Letters, 2005, 32, .	1.5	34

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37	ACE-FTS measurements across the edge of the winter 2004 Arctic vortex. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	34
38	Hydrogen fluoride total and partial column time series above the Jungfrauoch from long-term FTIR measurements: Impact of the line-shape model, characterization of the error budget and seasonal cycle, and comparison with satellite and model data. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	34
39	Report on Recent Validation Results from the Atmospheric Chemistry Experiment Fourier Transform Spectrometer (ACE-FTS). , 2013, , .		34
40	A global inventory of stratospheric fluorine in 2004 based on Atmospheric Chemistry Experiment Fourier transform spectrometer (ACE-FTS) measurements. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	32
41	Hydrocarbons in the upper troposphere and lower stratosphere observed from ACE-FTS and comparisons with WACCM. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 1964-1980.	1.2	32
42	Initial validation of ozone measurements from the High Resolution Dynamics Limb Sounder. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	31
43	Water vapor measurements in the mesosphere from Mauna Loa over solar cycle 23. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	29
44	Comparisons between ACE-FTS and ground-based measurements of stratospheric HCl and ClONO <sub>2</sub> loadings at northern latitudes. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	28
45	Validation of the Atmospheric Chemistry Experiment by noncoincident MkIV balloon profiles. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	27
46	Global phosgene observations from the Atmospheric Chemistry Experiment (ACE) mission. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	26
47	Atmospheric Chemistry Experiment (ACE) observations of aerosol in the upper troposphere and lower stratosphere from the Kasatochi volcanic eruption. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	26
48	Initial comparison of ozone and NO <sub>2</sub> profiles from ACE-MAESTRO with balloon and satellite data. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	25
49	Validation of ACE-FTS version 3.5 NO <sub>2</sub> species profiles using correlative satellite measurements. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 5781-5810.	1.2	25
50	Total hydrogen budget of the equatorial upper stratosphere. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	23
51	Odin observations of Antarctic nighttime NO densities in the mesosphere and lower thermosphere and observations of a lower NO layer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 7414-7425.	1.2	23
52	N <sub>2</sub> O production by high energy auroral electron precipitation. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	22
53	First remote sensing observations of trifluoromethane (HFC-23) in the upper troposphere and lower stratosphere. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	22
54	The onboard imagers for the Canadian ACE SCISAT-1 mission. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	21

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55	Pyrocumulonimbus Stratospheric Plume Injections Measured by the ACE-FTS. Geophysical Research Letters, 2020, 47, e2020GL088442.	1.5	21
56	First measurements of CFC-113 and HCFC-142b from space using ACE-FTS infrared spectra. Geophysical Research Letters, 2005, 32, .	1.5	20
57	Stratospheric correlation between nitric acid and ozone. Journal of Geophysical Research, 2009, 114, .	3.3	20
58	Evaluation of ACE-FTS and OSIRIS Satellite retrievals of ozone and nitric acid in the tropical upper troposphere: Application to ozone production efficiency. Journal of Geophysical Research, 2011, 116, .	3.3	20
59	Nighttime nitric oxide densities in the Southern Hemisphere mesosphere–lower thermosphere. Geophysical Research Letters, 2011, 38, .	1.5	20
60	Initial intercomparison of ozone and nitrogen dioxide number density profiles retrieved by the ACE-FTS and GOMOS occultation experiments. Geophysical Research Letters, 2005, 32, .	1.5	18
61	NO <sub>2</sub> air afterglow and O and NO densities from Odin-OSIRIS night and ACE-FTS sunset observations in the Antarctic MLT region. Journal of Geophysical Research, 2010, 115, .	3.3	18
62	A global inventory of stratospheric NO <sub>y</sub> from ACE-FTS. Journal of Geophysical Research, 2011, 116, .	3.3	17
63	Validation of ACE-FTS stratospheric ozone profiles against Odin/OSIRIS measurements. Geophysical Research Letters, 2005, 32, .	1.5	15
64	Trends in atmospheric HFC-23 (CHF <sub>3</sub> ) and HFC-134a abundances. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 238, 106540.	1.1	15
65	Denitrification in the Arctic winter 2004/2005: Observations from ACE-FTS. Geophysical Research Letters, 2006, 33, .	1.5	14
66	Global observations of HNO <sub>3</sub> from the High Resolution Dynamics Limb Sounder (HIRDLS): First results. Journal of Geophysical Research, 2008, 113, .	3.3	14
67	Satellite observations of stratospheric hydrogen fluoride and comparisons with SLIMCAT calculations. Atmospheric Chemistry and Physics, 2016, 16, 10501-10519.	1.9	14
68	Validation of the MIPAS CO <sub>2</sub> volume mixing ratio in the mesosphere and lower thermosphere and comparison with WACCM simulations. Journal of Geophysical Research D: Atmospheres, 2017, 122, 8345-8366.	1.2	14
69	Validating the reported random errors of ACE-FTS measurements. Journal of Geophysical Research, 2010, 115, .	3.3	13
70	Variations in middle atmospheric water vapor from 2004 to 2013. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,285.	1.2	13
71	Depletion of ozone and reservoir species of chlorine and nitrogen oxide in the lower Antarctic polar vortex measured from aircraft. Geophysical Research Letters, 2017, 44, 6440-6449.	1.5	12
72	Cloud detection in the upper troposphere-lower stratosphere region via ACE imagers: A qualitative study. Journal of Geophysical Research, 2007, 112, .	3.3	10

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73	A Near-Global Atmospheric Distribution of N <sub>2</sub> O Isotopologues. Geophysical Research Letters, 2017, 44, 10,735.	1.5	10
74	MLS measurements of stratospheric hydrogen cyanide during the 2015–2016 El Niño event. Atmospheric Chemistry and Physics, 2018, 18, 691-703.	1.9	10
75	Comparison of upper tropospheric carbon monoxide from MOPITT, ACE-FTS, and HIPPO-QCLS. Journal of Geophysical Research D: Atmospheres, 2014, 119, 14,144.	1.2	9
76	Carbon dioxide retrievals from Atmospheric Chemistry Experiment solar occultation measurements. Journal of Geophysical Research, 2010, 115, .	3.3	8
77	Validation of long-term measurements of water vapor from the midstratosphere to the mesosphere at two Network for the Detection of Atmospheric Composition Change sites. Journal of Geophysical Research D: Atmospheres, 2013, 118, 934-942.	1.2	7
78	A global enhancement of hydrogen cyanide in the lower stratosphere throughout 2016. Geophysical Research Letters, 2017, 44, 5791-5797.	1.5	7
79	The instrumental line shape of the atmospheric chemistry experiment Fourier transform spectrometer (ACE-FTS). Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 230, 1-12.	1.1	7
80	Fifteen Years of HFC-134a Satellite Observations: Comparisons With SLIMCAT Calculations. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033208.	1.2	7
81	Properties of high-altitude tropical cirrus clouds determined from ACE FTS observations. Geophysical Research Letters, 2005, 32, .	1.5	6
82	Comparison of Odin-OSIRIS OH A <sub>2</sub> Σ <sup>+</sup> -X <sub>2</sub> Σ <sup>+</sup> mesospheric observations and ACE-FTS water vapor observations. Geophysical Research Letters, 2006, 33, .	1.5	5
83	An Explanation for the Nitrous Oxide Layer Observed in the Mesopause Region. Geophysical Research Letters, 2018, 45, 7818-7827.	1.5	5
84	Tangent height determination from the N <sub>2</sub> -continuum for the Atmospheric Chemistry Experiment Fourier transform spectrometer. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 238, 106481.	1.1	4
85	Line-of-Sight Winds and Doppler Effect Smearing in ACE-FTS Solar Occultation Measurements. Atmosphere, 2021, 12, 680.	1.0	4
86	Fate of Pollution Emitted During the 2015 Indonesian Fire Season. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033474.	1.2	3
87	Reprint of: The instrumental line shape of the atmospheric chemistry experiment Fourier transform spectrometer (ACE-FTS). Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 238, 106713.	1.1	0