

Peter Bernath

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752
papers

30,406
citations

70
h-index

143
g-index

820
ext. papers

33,934
ext. citations

4
avg, IF

6.84
L-index

#	Paper	IF	Citations
752	The HITRAN 2008 molecular spectroscopic database. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2009 , 110, 533-572	2.1	2760
751	The HITRAN2012 molecular spectroscopic database. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2013 , 130, 4-50	2.1	2394
750	The HITRAN2016 molecular spectroscopic database. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017 , 203, 3-69	2.1	1701
749	Atmospheric Chemistry Experiment (ACE): Mission overview. <i>Geophysical Research Letters</i> , 2005 , 32,	4.9	651
748	Calibration of the Total Carbon Column Observing Network using aircraft profile data. <i>Atmospheric Measurement Techniques</i> , 2010 , 3, 1351-1362	4	345
747	Asian monsoon transport of pollution to the stratosphere. <i>Science</i> , 2010 , 328, 611-3	33.3	331
746	Retrievals for the atmospheric chemistry experiment Fourier-transform spectrometer. <i>Applied Optics</i> , 2005 , 44, 7218-31	1.7	318
745	Validation of the Aura Microwave Limb Sounder temperature and geopotential height measurements. <i>Journal of Geophysical Research</i> , 2008 , 113,		312
744	Importance of secondary sources in the atmospheric budgets of formic and acetic acids. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 1989-2013	6.8	226
743	Detection of C3 in the Circumstellar Shell of IRC+10216. <i>Science</i> , 1988 , 241, 1319-22	33.3	224
742	Validation of the Aura Microwave Limb Sounder middle atmosphere water vapor and nitrous oxide measurements. <i>Journal of Geophysical Research</i> , 2007 , 112,		214
741	Experimental Energy Levels of the Water Molecule. <i>Journal of Physical and Chemical Reference Data</i> , 2001 , 30, 735-831	4.3	214
740	Detection of C5 in the Circumstellar Shell of IRC+10216. <i>Science</i> , 1989 , 244, 562-4	33.3	214
739	Validation of Aura Microwave Limb Sounder stratospheric ozone measurements. <i>Journal of Geophysical Research</i> , 2008 , 113,		211
738	Fourier transform spectroscopy of the A ₃ ↔X ₃ transition of NH. <i>Journal of Molecular Spectroscopy</i> , 1986 , 120, 381-402	1.3	195
737	. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2006 , 44, 1106-1121	8.1	191
736	Recommended isolated-line profile for representing high-resolution spectroscopic transitions (IUPAC Technical Report). <i>Pure and Applied Chemistry</i> , 2014 , 86, 1931-1943	2.1	186

735	IUPAC critical evaluation of the rotational-vibrational spectra of water vapor, Part III: Energy levels and transition wavenumbers for H ₂ ¹⁶ O. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2013 , 117, 29-58	2.1	185
734	IUPAC critical evaluation of the rotational-vibrational spectra of water vapor. Part I: Energy levels and transition wavenumbers for H ₂ ¹⁷ O and H ₂ ¹⁸ O. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2009 , 110, 573-596	2.1	166
733	The infrared spectra of uracil, thymine, and adenine in the gas phase. <i>Chemical Physics Letters</i> , 1997 , 269, 39-48	2.5	166
732	Space-based constraints on the production of nitric oxide by lightning. <i>Journal of Geophysical Research</i> , 2007 , 112,		157
731	Chemical isolation in the Asian monsoon anticyclone observed in Atmospheric Chemistry Experiment (ACE-FTS) data. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 757-764	6.8	154
730	Energetic particle precipitation effects on the Southern Hemisphere stratosphere in 1992-2005. <i>Journal of Geophysical Research</i> , 2007 , 112,		153
729	IUPAC critical evaluation of the rotational-vibrational spectra of water vapor. Part II. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2010 , 111, 2160-2184	2.1	151
728	The spectroscopy of water vapour: Experiment, theory and applications. <i>Physical Chemistry Chemical Physics</i> , 2002 , 4, 1501-1509	3.6	147
727	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,		132
726	Enhanced NO _x in 2006 linked to strong upper stratospheric Arctic vortex. <i>Geophysical Research Letters</i> , 2006 , 33, n/a-n/a	4.9	132
725	NO _x descent in the Arctic middle atmosphere in early 2009. <i>Geophysical Research Letters</i> , 2009 , 36,	4.9	130
724	A 3000 K laboratory emission spectrum of water. <i>Journal of Chemical Physics</i> , 2005 , 122, 074307	3.9	130
723	LINE LISTS FOR THE A 2 \times 2 (RED) AND B 2 \times 2 (VIOLET) SYSTEMS OF CN, 13 C 1. <i>Astrophysical Journal, Supplement Series</i> , 2014 , 214, 26	8	125
722	The infrared emission spectrum of gas-phase C ₆₀ (buckminsterfullerene). <i>Chemical Physics Letters</i> , 1991 , 176, 504-508	2.5	125
721	Water on the sun: line assignments based on variational calculations. <i>Science</i> , 1997 , 277, 346-8	33.3	117
720	Speed-dependent Voigt profile for water vapor in infrared remote sensing applications. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2007 , 105, 525-532	2.1	117
719	Validation of ozone measurements from the Atmospheric Chemistry Experiment (ACE). <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 287-343	6.8	112
718	Line Intensities and Molecular Opacities of the FeHF ₄ Transition. <i>Astrophysical Journal</i> , 2003 , 594, 651-663	4.7	111

717	Molecular oxygen in the ρ Ophiuchi cloud. <i>Astronomy and Astrophysics</i> , 2007 , 466, 999-1003	5.1	107
716	Line strengths and updated molecular constants for the C2 Swan system. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2013 , 124, 11-20	2.1	106
715	ACE-FTS observation of a young biomass burning plume: first reported measurements of C_2H_2 , C_2H_4 , C_2H_6 , H_2O , H_2 , CO and PAN by infrared occultation from space. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 5437-5446	6.8	104
714	The infrared spectrum of the ν fundamental band of the molecular ion. <i>Canadian Journal of Physics</i> , 1984 , 62, 1875-1885	1.1	103
713	High-Temperature Rotational Transitions of Water in Sunspot and Laboratory Spectra. <i>Journal of Molecular Spectroscopy</i> , 1997 , 186, 422-47	1.3	102
712	The near infrared, visible, and near ultraviolet overtone spectrum of water. <i>Journal of Chemical Physics</i> , 1999 , 111, 2444-2450	3.9	101
711	High Resolution Dynamics Limb Sounder: Experiment overview, recovery, and validation of initial temperature data. <i>Journal of Geophysical Research</i> , 2008 , 113,		98
710	On the Origin of Infrared Plateau Features in ProtoPlanetary Nebulae. <i>Astrophysical Journal</i> , 2001 , 554, L87-L90	4.7	97
709	Water on the sun. <i>Science</i> , 1995 , 268, 1155-8	33.3	96
708	Difference frequency laser spectroscopy of the β band of the CH ₃ radical. <i>Journal of Chemical Physics</i> , 1982 , 77, 5284-5287	3.9	96
707	The HITRAN2020 molecular spectroscopic database. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 277, 107949	2.1	96
706	The ACE-FTS atlas of the infrared solar spectrum. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2010 , 111, 521-528	2.1	94
705	CO measurements from the ACE-FTS satellite instrument: data analysis and validation using ground-based, airborne and spaceborne observations. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 2569-2594	6.8	91
704	Spectroscopy of the CH free radical. <i>Journal of Molecular Spectroscopy</i> , 1991 , 147, 16-26	1.3	91
703	Recent Northern Hemisphere stratospheric HCl increase due to atmospheric circulation changes. <i>Nature</i> , 2014 , 515, 104-7	50.4	88
702	EINSTEIN A COEFFICIENTS AND OSCILLATOR STRENGTHS FOR THE A $2\ ^1\Pi \rightarrow 2\ ^1\Sigma^+$ (RED) AND B $2\ ^1\Sigma^+ \rightarrow X\ ^2\Sigma^+$ (VIOLET) SYSTEMS AND ROVIBRATIONAL TRANSITIONS IN THE. <i>Astrophysical Journal, Supplement Series</i> , 2014 , 210, 23	8	83
701	Low upper limits on the O ₂ abundance from the Odin satellite. <i>Astronomy and Astrophysics</i> , 2003 , 402, L77-L81	5.1	83
700	The Atmospheric Chemistry Experiment (ACE). <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017 , 186, 3-16	2.1	82

699	EChO. <i>Experimental Astronomy</i> , 2012 , 34, 311-353	1.3	82
698	New CrH Opacities for the Study of L and Brown Dwarf Atmospheres. <i>Astrophysical Journal</i> , 2002 , 577, 986-992	4.7	82
697	Theoretical predictions and experimental detection of the SiC molecule. <i>Physical Review Letters</i> , 1988 , 60, 197-199	7.4	82
696	Process-evaluation of tropospheric humidity simulated by general circulation models using water vapor isotopologues: 1. Comparison between models and observations. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		81
695	Fourier transform spectroscopy of the Swan (d ³ Π _g - a ³ Π _u) system of the jet-cooled C ₂ molecule. <i>Astrophysical Journal</i> , 1994 , 426, 812	4.7	81
694	Detection of the Infrared Fundamental Band of HeH ⁺ . <i>Physical Review Letters</i> , 1982 , 48, 20-22	7.4	80
693	Validation of the Aura Microwave Limb Sounder HNO ₃ measurements. <i>Journal of Geophysical Research</i> , 2007 , 112,		79
692	Vibration-rotation emission spectra and combined isotopomer analyses for the coinage metal hydrides: CuH & CuD, AgH & AgD, and AuH & AuD. <i>Journal of Chemical Physics</i> , 1999 , 110, 11756-11767	3.9	77
691	Fourier transform jet-emission spectroscopy of the A ² Π-X ² Σ ⁺ transition of CN. <i>Journal of Molecular Spectroscopy</i> , 1992 , 156, 327-340	1.3	75
690	Fourier transform emission spectroscopy of the copper dimer. <i>Journal of Molecular Spectroscopy</i> , 1992 , 156, 468-486	1.3	75
689	A study of stratospheric chlorine partitioning based on new satellite measurements and modeling. <i>Journal of Geophysical Research</i> , 2008 , 113,		73
688	New observations of the A ¹ Π-X ¹ Σ ⁺ transition (Phillips system) of C ₂ . <i>Journal of Molecular Spectroscopy</i> , 1988 , 131, 250-260	1.3	73
687	Validation of ACE-FTS v2.2 methane profiles from the upper troposphere to the lower mesosphere. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 2421-2435	6.8	72
686	The high Arctic in extreme winters: vortex, temperature, and MLS and ACE-FTS trace gas evolution. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 505-522	6.8	72
685	Infrared Spectral Atlases of the Sun from NOAO. <i>Astrophysical Journal, Supplement Series</i> , 1996 , 106, 165	8	72
684	Global O ₃ Chemistry And Related trace gas Data records for the Stratosphere (GOZCARDS): methodology and sample results with a focus on HCl, H ₂ O, and O ₃ . <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 10471-10507	6.8	71
683	Infrared absorption cross sections for ethane (C ₂ H ₆) in the 3 μm region. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2010 , 111, 357-363	2.1	70
682	Validation of ACE-FTS v2.2 measurements of HCl, HF, CCl ₃ F and CCl ₂ F ₂ using space-, balloon- and ground-based instrument observations. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 6199-6221	6.8	69

681	Trends in atmospheric halogen containing gases since 2004. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2011 , 112, 2552-2566	2.1	68
680	High resolution emission spectroscopy of AlCl at 20 μ m. <i>Journal of Chemical Physics</i> , 1993 , 99, 8363-8370	3.9	68
679	Laser and fourier transform spectroscopy of the transition of SrOH. <i>Journal of Molecular Spectroscopy</i> , 1985 , 114, 163-173	1.3	68
678	IUPAC critical evaluation of the rotational-vibrational spectra of water vapor. Part IV. Energy levels and transition wavenumbers for D216O, D217O, and D218O. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2014 , 142, 93-108	2.1	67
677	Current updates of the water-vapor line list in HITRAN: A new Diet for air-broadened half-widths. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2007 , 108, 389-402	2.1	67
676	The discovery of two new infrared electronic transitions of C2: B ¹ Σ^+ -A ¹ Σ^+ and B ² Σ^+ -A ¹ Σ^+ . <i>Journal of Molecular Spectroscopy</i> , 1988 , 131, 261-271	1.3	67
675	Process-evaluation of tropospheric humidity simulated by general circulation models using water vapor isotopic observations: 2. Using isotopic diagnostics to understand the mid and upper tropospheric moist bias in the tropics and subtropics. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		66
674	Fourier transform jet emission spectroscopy of the B ² Σ^+ -X ² Σ^+ transition of CN. <i>Journal of Molecular Spectroscopy</i> , 1992 , 151, 459-473	1.3	66
673	A database of water transitions from experiment and theory (IUPAC Technical Report). <i>Pure and Applied Chemistry</i> , 2014 , 86, 71-83	2.1	65
672	Satellite observations and modeling of transport in the upper troposphere through the lower mesosphere during the 2006 major stratospheric sudden warming. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 4775-4795	6.8	65
671	The ACE-MAESTRO instrument on SCISAT: description, performance, and preliminary results. <i>Applied Optics</i> , 2007 , 46, 4341-56	1.7	65
670	The A ² E ⁺ -2A ¹ transition of monomethyl calcium: A rotational analysis. <i>Journal of Chemical Physics</i> , 1989 , 91, 4548-4554	3.9	65
669	Rotational and vibrational analysis of the CaF B ² Σ^+ -X ² Σ^+ system. <i>Canadian Journal of Physics</i> , 1980 , 58, 703-712	1.1	65
668	Line strengths of rovibrational and rotational transitions in the X ² Σ^+ ground state of OH. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2016 , 168, 142-157	2.1	64
667	The Swan System of C ₂ : A Global Analysis of Fourier Transform Emission Spectra. <i>Astrophysical Journal, Supplement Series</i> , 2007 , 169, 472-484	8	64
666	Comprehensive analysis of the A ¹ Σ^+ spectrum of I ₂ : An application of near-dissociation theory. <i>Journal of Chemical Physics</i> , 1996 , 104, 903-913	3.9	64
665	A spectral line survey of Orion KL in the bands 486-492 and 541-577 GHz with the Odin satellite. <i>Astronomy and Astrophysics</i> , 2007 , 476, 807-827	5.1	64
664	Drift-corrected trends and periodic variations in MIPAS IMK/IAA ozone measurements. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 2571-2589	6.8	63

663	Global variations of HDO and HDO/H ₂ O ratios in the upper troposphere and lower stratosphere derived from ACE-FTS satellite measurements. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		63
662	Ground state potential energy curve and dissociation energy of MgH. <i>Journal of Physical Chemistry A</i> , 2007 , 111, 12495-505	2.8	63
661	Monodromy in the water molecule. <i>Chemical Physics Letters</i> , 2005 , 414, 193-197	2.5	63
660	Infrared Fourier transform spectroscopy of XeH. <i>Molecular Physics</i> , 1988 , 64, 425-436	1.7	63
659	Dye laser spectroscopy of the B ₂ Σ -X ₂ Σ transition of CaOH. <i>Chemical Physics Letters</i> , 1984 , 105, 663-666	2.5	63
658	High-Resolution Infrared Emission Spectra of HCl and HF. <i>Journal of Molecular Spectroscopy</i> , 1994 , 164, 574-579	1.3	62
657	Fourier transform spectroscopy of the B band of the N ₃ radical. <i>Journal of Chemical Physics</i> , 1988 , 89, 1762-1767	3.9	62
656	Laser excited fluorescence of CS ₂ . <i>Journal of Molecular Spectroscopy</i> , 1981 , 86, 275-285	1.3	62
655	Observation of the infrared absorption spectra of ²⁰ NeH ⁺ and ²² NeH ⁺ with a difference frequency laser. <i>Journal of Chemical Physics</i> , 1982 , 77, 693-696	3.9	62
654	Validation of HNO ₃ , ClONO ₂ , and N ₂ O ₅ from the Atmospheric Chemistry Experiment Fourier Transform Spectrometer (ACE-FTS). <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 3529-3562	6.8	61
653	The vibration-rotation emission spectrum of CH(X ² Σ). <i>Journal of Chemical Physics</i> , 1987 , 86, 4838-4842	3.9	61
652	Northern Hemisphere atmospheric influence of the solar proton events and ground level enhancement in January 2005. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 6153-6166	6.8	60
651	Validation of ACE-FTS N ₂ O measurements. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 4759-4786	6.8	60
650	The infrared spectrum of XeH ⁺ . <i>Journal of Chemical Physics</i> , 1987 , 87, 159-162	3.9	60
649	The hyperfine structure of the calcium monohalides. <i>Journal of Chemical Physics</i> , 1981 , 74, 5508-5515	3.9	60
648	Satellite boreal measurements over Alaska and Canada during June-July 2004: Simultaneous measurements of upper tropospheric CO, C ₂ H ₆ , HCN, CH ₃ Cl, CH ₄ , C ₂ H ₂ , CH ₃ OH, HCOOH, OCS, and SF ₆ mixing ratios. <i>Global Biogeochemical Cycles</i> , 2007 , 21, n/a-n/a	5.9	59
647	Fourier-transform spectroscopy of NH: the c ¹ Σ ⁺ -X ¹ Σ ⁺ transition. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1986 , 3, 1170	1.7	59
646	Validation of the Atmospheric Chemistry Experiment (ACE) version 2.2 temperature using ground-based and space-borne measurements. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 35-62	6.8	58

- 645 An empirical line-by-line model for the infrared solar transmittance spectrum from 700 to 5000cm⁻¹. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2006**, 102, 450-463 2.1 58
- 644 SEARCHING FOR CHEMICAL SIGNATURES OF MULTIPLE STELLAR POPULATIONS IN THE OLD, MASSIVE OPEN CLUSTER NGC 6791. *Astrophysical Journal*, **2014**, 796, 68 4.7 57
- 643 FTIR Emission Spectra, Molecular Constants, and Potential Curve of Ground State GeO. *Journal of Molecular Spectroscopy*, **1999**, 194, 197-202 1.3 57
- 642 Rotational analysis of the B $2\frac{1}{2}^-_g - 2\frac{1}{2}^-_g$ transition of BaOH and BaOD. *Journal of Chemical Physics*, **1986**, 84, 698-708 3.9 57
- 641 [ITAL]K[/ITAL]-Band Spectrum of Water in Sunspots. *Astrophysical Journal*, **1997**, 489, L205-L208 4.7 55
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- 639 The relation between atmospheric humidity and temperature trends for stratospheric water. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 1052-1074, Supplement Series, **1999**, 122, 331-333 4.4 54
- 638 IASI carbon monoxide validation over the Arctic during POLARCAT spring and summer campaigns. *Atmospheric Chemistry and Physics*, **2010**, 10, 10655-10678 6.8 54
- 637 Global distributions of carbonyl sulfide in the upper troposphere and stratosphere. *Geophysical Research Letters*, **2008**, 35, 4.9 54
- 636 Validation of NO₂ and NO from the Atmospheric Chemistry Experiment (ACE). *Atmospheric Chemistry and Physics*, **2008**, 8, 5801-5841 6.8 54
- 635 Technical Note: New ground-based FTIR measurements at Ile de La Reunion: observations, error analysis, and comparisons with independent data. *Atmospheric Chemistry and Physics*, **2008**, 8, 3483-3508 6.8 53
- 634 CO emission and export from Asia: an analysis combining complementary satellite measurements (MOPITT, SCIAMACHY and ACE-FTS) with global modeling. *Atmospheric Chemistry and Physics*, **2008**, 8, 5187-5204 6.8 53
- 633 Comparison of atmospheric retrievals from ACE and HALOE. *Geophysical Research Letters*, **2005**, 32, 4.9 53
- 632 Spectroscopy of CaOH. *Astrophysical Journal*, **1985**, 288, 373 4.7 53
- 631 Observations of increasing carbon dioxide concentration in Earth's thermosphere. *Nature Geoscience*, **2012**, 5, 868-871 18.3 52
- 630 Initial validation comparisons for the Atmospheric Chemistry Experiment (ACE-FTS). *Geophysical Research Letters*, **2005**, 32, 4.9 52
- 629 The vibration-rotation emission spectrum of free BeH₂. *Science*, **2002**, 297, 1323-4 33.3 52
- 628 ExoMol line list XXI. Nitric Oxide (NO). *Monthly Notices of the Royal Astronomical Society*, **2017**, 470, 882-897 4.3 51

627	DiRef, A Database of References Associated with the Spectra of Diatomic Molecules. <i>Journal of Molecular Spectroscopy</i> , 2001 , 207, 287	1.3	51
626	Characterization of the Ground State of Br(2) by Laser-Induced Fluorescence Fourier Transform Spectroscopy of the B(3)Pi(0(+))(u)-X(1)Sigma(+)(g) System. <i>Journal of Molecular Spectroscopy</i> , 2000 , 200, 104-119	1.3	51
625	HOT METHANE LINE LISTS FOR EXOPLANET AND BROWN DWARF ATMOSPHERES. <i>Astrophysical Journal</i> , 2012 , 757, 46	4.7	50
624	Fourier transform emission spectroscopy of the B2 $\Sigma^+_{g,2}$ system of CN. <i>Journal of Molecular Spectroscopy</i> , 2006 , 237, 225-231	1.3	50
623	Hot methane spectra for astrophysical applications. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2003 , 82, 279-292	2.1	50
622	Infrared emission spectra of BeH ₂ and BeD ₂ . <i>Journal of Chemical Physics</i> , 2003 , 118, 3622-3627	3.9	50
621	The Emission Spectrum of Hot Water in the Region between 370 and 930 cm ⁻¹ . <i>Journal of Molecular Spectroscopy</i> , 1996 , 176, 305-315	1.3	50
620	Carbon dioxide atmospheric vertical profiles retrieved from space observation using ACE-FTS solar occultation instrument. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 2455-2470	6.8	49
619	Variability in HDO/H ₂ O abundance ratios in the tropical tropopause layer. <i>Journal of Geophysical Research</i> , 2007 , 112,		49
618	Atmospheric chemistry experiment (ACE): Analytical chemistry from orbit. <i>TrAC - Trends in Analytical Chemistry</i> , 2006 , 25, 647-654	14.6	49
617	Gas-phase infrared emission spectra of C ₆₀ and C ₇₀ . Temperature-dependent studies. <i>Chemical Physics Letters</i> , 1994 , 218, 295-303	2.5	49
616	Spectroscopic Constants, Abundances, and Opacities of the TiH Molecule. <i>Astrophysical Journal</i> , 2005 , 624, 988-1002	4.7	48
615	Observation of gas phase organometallic free radicals: Monomethyl derivatives of calcium and strontium. <i>Journal of Chemical Physics</i> , 1987 , 86, 5918-5922	3.9	48
614	Far- and Mid-Infrared Emission Spectroscopy of LiH and LiD. <i>Journal of Molecular Spectroscopy</i> , 1998 , 188, 14-26	1.3	47
613	Validation of ACE-FTS satellite data in the upper troposphere/lower stratosphere (UTLS) using non-coincident measurements. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 1483-1499	6.8	47
612	Validation of MIPAS CLONO₂ measurements. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 257-281	6.8	47
611	Laser spectroscopy of alkaline earth monoalkoxide free radicals. <i>Journal of the American Chemical Society</i> , 1986 , 108, 2126-32	16.4	47
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609	Molecular astronomy of cool stars and sub-stellar objects. <i>International Reviews in Physical Chemistry</i> , 2009 , 28, 681-709	7	46
608	Atmospheric Chemistry Experiment (ACE) Arctic stratospheric measurements of NO _x during February and March 2004: Impact of intense solar flares. <i>Geophysical Research Letters</i> , 2005 , 32,	4.9	46
607	The A ³ Σ ⁺ transition of the SiC radical. <i>Journal of Chemical Physics</i> , 1989 , 91, 7384-7386	3.9	46
606	The spectrum of magnesium hydride. <i>Astrophysical Journal</i> , 1985 , 298, 375	4.7	46
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604	Quantifying the impact of Boreal forest fires on Tropospheric oxidants over the Atlantic using Aircraft and Satellites (BORTAS) experiment: design, execution and science overview. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 6239-6261	6.8	45
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602	A global inventory of stratospheric chlorine in 2004. <i>Journal of Geophysical Research</i> , 2006 , 111,		45
601	Validation of water vapour profiles from the Atmospheric Chemistry Experiment (ACE)		45
600	Estimation of stratospheric age spectrum from chemical tracers. <i>Journal of Geophysical Research</i> , 2005 , 110,		44
599	What drives the observed variability of HCN in the troposphere and lower stratosphere?. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 8531-8543	6.8	43
598	First space-borne measurements of methanol inside aged southern tropical to mid-latitude biomass burning plumes using the ACE-FTS instrument. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 3463-3470	6.8	43
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