Keeyoon Sung

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6238506/publications.pdf

Version: 2024-02-01

98 papers	12,236 citations	186265 28 h-index	36028 97 g-index
107 all docs	107 docs citations	107 times ranked	7821 citing authors

#	Article	IF	Citations
1	The HITRAN 2008 molecular spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 533-572.	2.3	3,129
2	The HITRAN2016 molecular spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 3-69.	2.3	2,840
3	The HITRAN2012 molecular spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 130, 4-50.	2.3	2,810
4	The HITRAN2020 molecular spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 277, 107949.	2.3	770
5	The 2015 edition of the GEISA spectroscopic database. Journal of Molecular Spectroscopy, 2016, 327, 31-72.	1.2	311
6	The 2009 edition of the GEISA spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2395-2445.	2.3	306
7	Methane line parameters in the HITRAN2012 database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 130, 201-219.	2.3	121
8	Update of the HITRAN collision-induced absorption section. Icarus, 2019, 328, 160-175.	2.5	105
9	DETECTION OF PROPENE IN TITAN'S STRATOSPHERE. Astrophysical Journal Letters, 2013, 776, L14.	8.3	84
10	Atmospheric validation of high accuracy CO2 absorption coefficients for the OCO-2 mission. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2265-2276.	2.3	82
11	Extended line positions, intensities, empirical lower state energies and quantum assignments of NH3 from 6300 to 7000cmâ¯1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1066-1083.	2.3	76
12	Multispectrum analysis of the oxygen A-band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 186, 118-138.	2.3	67
13	Measurements of line intensities and half-widths in the 10-Î¼m bands of. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 83, 243-265.	2.3	61
14	Spectral line parameters including temperature dependences of self- and air-broadening in the 2â†0 band of CO at 2.3Î¼m. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1013-1033.	2.3	59
15	Line parameters including temperature dependences of self- and air-broadened line shapes of 12C16O2: 1.6-Î¼m region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 177, 117-144.	2.3	52
16	Precise methane absorption measurements in the 1.64â€‰Î¼m spectral region for the MERLIN mission. Journal of Geophysical Research D: Atmospheres, 2016, 121, 7360-7370.	3.3	50
17	Submillimeter-wave and far-infrared spectroscopy of high-J transitions of the ground and Î½2=1 states of ammonia. Journal of Chemical Physics, 2010, 133, 174317.	3.0	49
18	-broadened half-widths and -induced line shifts of relevant to the atmospheric spectra of Venus and Mars. Journal of Quantitative Spectroscopy and Radiative Transfer, 2005, 91, 319-332.	2.3	47

#	Article	IF	Citations
19	Measurements of O3, NO2and Temperature during the 2004 Canadian Arctic ACE Validation Campaign. Geophysical Research Letters, 2005, 32, .	4.0	43
20	Line parameters including temperature dependences of air- and self-broadened line shapes of 12C16O2: 2.06-Î¼m region. Journal of Molecular Spectroscopy, 2016, 326, 21-47.	1.2	42
21	Intensities, collision-broadened half-widths, and collision-induced line shifts in the second overtone band of. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 83, 445-458.	2.3	38
22	Self- and air-broadened line shapes in the 2Î½3 P and R branches of 12CH4. Journal of Molecular Spectroscopy, 2015, 315, 114-136.	1.2	37
23	FT-IR measurements of cold C3H8 cross sections at 7â€“15Î¼m for Titan atmosphere. Icarus, 2013, 226, 1499-1513.	2.5	36
24	Fourier transform infrared spectroscopy measurements of H₂O-broadened half-widths of CO₂ at 4.3ÂÎ¼mThis article is part of a Special Issue on Spectroscopy at the University of New Brunswick in honour of Colan Linton and Ron Lees.. Canadian Journal of Physics, 2009, 87, 469-484.	1.1	35
25	Design and Construction of Absorption Cells for Precision Radial Velocities in theKBand Using Methane Isotopologues. Publications of the Astronomical Society of the Pacific, 2012, 124, 586-597.	3.1	35
26	The portable atmospheric research interferometric spectrometer for the infrared, PARIS-IR. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 103, 362-370.	2.3	33
27	Preliminary modeling of CH3D from 4000 to 4550 cmâ¯1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 114, 1-12.	2.3	33
28	Rotational spectroscopy as a tool to investigate interactions between vibrational polyads in symmetric top molecules: Low-lying states <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si89.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mi>v</mml:mi></mml:mrow><mml:mrow><mml:mn>8</mml:mn></mr of methyl cyanide, CH3CN. Journal of Molecular Spectroscopy, 2015, 312, 22-37.	1.2	33
29	High accuracy absorption coefficients for the Orbiting Carbon Observatory-2 (OCO-2) mission: Validation of updated carbon dioxide cross-sections using atmospheric spectra. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 213-223.	2.3	32
30	Cryogenic absorption cells operating inside a Bruker IFS-125HR: First results for 13CH4 at 7Î¼m. Journal of Molecular Spectroscopy, 2010, 262, 122-134.	1.2	29
31	HITRAN spectroscopy evaluation using solar occultation FTIR spectra. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 182, 324-336.	2.3	28
32	Determination of the low energy values of 13CH4 transitions in the 2Î½3 region near 1.66Î¼m from absorption spectra at 296 and 81K. Journal of Molecular Spectroscopy, 2010, 261, 91-100.	1.2	27
33	A cryogenic Herriott cell vacuum-coupled to a Bruker IFS-125HR. Journal of Molecular Spectroscopy, 2014, 304, 12-24.	1.2	25
34	Spectral line parameters including line shapes in the 2Î½3 Q branch of 12CH4. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 177, 152-169.	2.3	25
35	Multispectrum measurements of spectral line parameters including temperature dependences of N2- and self-broadened half-width coefficients in the region of the Î½9 band of 12C2H6. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 2481-2504.	2.3	24
36	Absorption coefficient (ABSCO) tables for the Orbiting Carbon Observatories: Version 5.1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 255, 107217.	2.3	24

#	Article	IF	Citations
37	Self- and air-broadened line shape parameters in the Î½2+Î½3 band of 12CH4: 4500â€“4630cmâ¯1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 152, 149-165.	2.3	21
38	Spectroscopic line parameters of 12 CH 4 for atmospheric composition retrievals in the 4300â€“4500 cm â¯1 region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 186, 106-117.	2.3	21
39	N2O and O3 arctic column amounts from PARIS-IR observations: Retrievals, characterization and error analysis. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 107, 385-406.	2.3	20
40	Line strength measurements of carbonyl sulfide (16O12C32S) in the 2ν3, ν1+2ν2+ν3, and 4ν2+ν3 bands. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 2082-2101.	2.3	20
41	Volatile organic sulfur compounds as biomarkers complementary to methane: Infrared absorption spectroscopy of CH3SH enables insitu measurements on Earth and Mars. Planetary and Space Science, 2011, 59, 299-303.	1.7	20
42	Spectral line parameters including temperature dependences of air-broadening for the 2â†0 bands of 13C16O and 12C18O at 2.3Î¼m. Journal of Molecular Spectroscopy, 2012, 276-277, 33-48.	1.2	20
43	Measurements and modeling of long-path 12CH4 spectra in the 5300â€“5550â€¯cmâ¯1 region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 202, 255-264.	2.3	20
44	Hydrogen-broadened half-widths and hydrogen-induced line shifts of relevant to the Jovian atmospheric spectra. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 85, 165-182.	2.3	18
45	High resolution investigation of the 7Î¼m region of the ethane spectrum. Planetary and Space Science, 2012, 60, 93-101.	1.7	18
46	Measurements and modeling of cold 13CH4 spectra in the 3750â€“4700 cmâ¯1 region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 174, 88-100.	2.3	18
47	Interleaved difference-frequency generation for microcomb spectral densification in the mid-infrared. Optica, 2020, 7, 309.	9.3	18
48	Line parameters for CO2- and self-broadening in the Î½3 band of HD16O. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 158-174.	2.3	17
49	Measurement and Modeling of Airâ€Broadened Methane Absorption in the MERLIN Spectral Region at Low Temperatures. Journal of Geophysical Research D: Atmospheres, 2019, 124, 3556-3564.	3.3	17
50	Spatial and seasonal variations in C3H hydrocarbon abundance in Titanâ€™s stratosphere from Cassini CIRS observations. Icarus, 2019, 317, 454-469.	2.5	17
51	Far-infrared 14NH3 line positions and intensities measured with a FT-IR and AILES beamline, Synchrotron SOLEIL. Journal of Molecular Spectroscopy, 2016, 327, 1-20.	1.2	16
52	FT-IR measurements of cold propene (C3H6) cross-sections at temperatures between 150 and 299ÂK. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 213, 119-132.	2.3	16
53	Pressure broadening of oxygen by water. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 133, 190-198.	2.3	15
54	Positions, intensities and line shape parameters for the 1â†0 bands of CO isotopologues. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 218, 203-230.	2.3	14

#	Article	IF	Citations
55	Ground-based solar absorption studies for the Carbon Cycle science by Fourier Transform Spectroscopy (CC-FTS) mission. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 2219-2243.	2.3	13
56	An intensity study of the torsional bands of ethane at 35 Âµm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 151, 123-132.	2.3	13
57	Line parameters for CO2 broadening in the Î½2 band of HD16O. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 187, 472-488.	2.3	13
58	Analysis of PH3 spectra in the Octad range 2733â€“3660 cmâ^'1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 472-479.	2.3	13
59	Assignment and modelling of 12CH4 spectra in the 5550â€“5695, 5718â€“5725 and 5792â€“5814Âcmâ^'1 regions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 219, 323-332.	2.3	13
60	Line positions and strengths of 41 bands including 10 OCS isotopologues in the 3850â€“4200cmâ^'1 region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 1193-1208.	2.3	12
61	Empirical line intensities of methanol in the 300â€“500 cmâ^'1 region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 128-139.	2.3	12
62	Temperature dependences of N2-broadening and shift coefficients in the Î½6 perpendicular band of 12CH3D. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 163, 120-141.	2.3	11
63	Line parameters for CO2- and self-broadening in the Î½1 band of HD16O. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 133-157.	2.3	11
64	FT-IR spectra of 18 O-, and 13 C-enriched CO 2 in the Î½ 3 region: High accuracy frequency calibration and spectroscopic constants for 16 O 12 C 18 O, 18 O 12 C 18 O, and 16 O 13 C 16 O. Journal of Molecular Spectroscopy, 2015, 312, 78-86.	1.2	10
65	Temperature dependences of self- and N2-broadened line-shape parameters in the Î½3 and Î½5 bands of 12CH3D: Measurements and calculations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 177, 181-215.	2.3	10
66	Improving atmospheric CO2 retrievals using line mixing and speed-dependence when fitting high-resolution ground-based solar spectra. Journal of Molecular Spectroscopy, 2016, 323, 15-27.	1.2	10
67	Improved line list of 12CH4 in the 3760â€“4100Âcmâ^'1 region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 225, 351-362.	2.3	10
68	Simultaneous trace gas measurements using two Fourier transform spectrometers at Eureka, Canada during spring 2006, and comparisons with the ACE-FTS. Atmospheric Chemistry and Physics, 2011, 11, 5383-5405.	4.9	9
69	N2- and (H2+He)-broadened cross sections of benzene (C6H6) in the 7â€“15 Âµm region for the Titan and jovian atmospheres. Icarus, 2016, 271, 438-452.	2.5	9
70	Using high-resolution laboratory and ground-based solar spectra to assess CH4 absorption coefficient calculations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 190, 48-59.	2.3	9
71	FT-IR spectra of 17 O-enriched CO 2 in the Î½ 3 region: High accuracy frequency calibration and spectroscopic constants for 16 O 12 C 17 O, 17 O 12 C 17 O, and 17 O 12 C 18 O. Journal of Molecular Spectroscopy, 2014, 304, 1-11.	1.2	8
72	Atmospheric carbonyl sulfide (OCS) measured remotely by FTIR solar absorption spectrometry. Atmospheric Chemistry and Physics, 2018, 18, 1923-1944.	4.9	8

#	Article	IF	Citations
73	a global model of the interactions in low-lying states of methyl cyanide: Rotational and rovibrational spectroscopy of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si326.svg"><mml:mrow><mml:msub><mml:mrow><mml:mi>Ï...</mml:mi></mml:mrow><mml:mrow><mml:mn>4</mml:mn linebreak="goodbreak" linebreakstyle="after">=</mml:mo><mml:mn>1</mml:mn></mml:mrow></mml:math> state and tentative interstellar detection of the <mml:math xmlns:mml="http://www.w3.org/1998/ Journal of Molecular S	1.2	8
74	H216O line strengths revisited: Î½2 and 2Î½2â€“Î½2 at 6Î¼m. Journal of Molecular Spectroscopy, 2011, 265, 59-68.	1.2	7
75	FTS measurements of O2 collision-induced absorption in the 565â€“700â€¯nm region using a high pressure gas absorption cell. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 235, 232-243.	2.3	7
76	Measurements of atmospheric ethene by solar absorption FTIR spectrometry. Atmospheric Chemistry and Physics, 2018, 18, 5075-5088.	4.9	6
77	Extended measurements and an experimental accuracy effective Hamiltonian model for the 3Î½2 and Î½4+Î½2 states of ammonia. Journal of Molecular Spectroscopy, 2018, 353, 60-66.	1.2	6
78	Pseudoline parameters to represent n-butane (n-C4H10) cross-sections measured in the 7â€“15ÂÂµm region for the Titan atmosphere. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 251, 107011.	2.3	6
79	Line list of 12CH4 in the 4300â€“4600 cmâ»1 region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 253, 107061.	2.3	6
80	The Î½4, Î½9, Î½10 and Î½6+Î½11 bands of 12CH313CH3 between 1345 and 1557cmâ»1. Journal of Molecular Spectroscopy, 2014, 302, 36-49.	1.2	5
81	Assignment and modeling of the 13CH4 cold absorption spectrum in the 5471â€“5852Âcmâ»1 spectral range. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 235, 278-286.	2.3	5
82	H2-pressure broadening and frequency shifts of methane in the v2+v3 band measured in the temperature range between 80 and 370ÂK. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 256, 107264.	2.3	5
83	GFIT3: a full physics retrieval algorithm for remote sensing of greenhouse gases in the presence of aerosols. Atmospheric Measurement Techniques, 2021, 14, 6483-6507.	3.1	5
84	Line positions and intensities for the Î½12 band of 13C12CH6. Journal of Molecular Spectroscopy, 2014, 301, 28-38.	1.2	4
85	The Î½17 band of C2H5D from 770 to 880cmâ»1. Journal of Molecular Spectroscopy, 2015, 316, 1-10.	1.2	4
86	Measurements and modeling of 16O12C17O spectroscopic parameters at 2 Âµm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 249-264.	2.3	4
87	The 13CH4 absorption spectrum at 80 K: Assignment and modeling of the lower part of the Tetradecad in the 4970â€“5470Âcmâ»1 spectral range. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 206, 306-312.	2.3	4
88	Dual frequency comb absorption spectroscopy of CH4 up to 1000 Kelvin from 6770 to 7570Âcm-1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 272, 107812.	2.3	4
89	Improved line list of 12CH4 in the 4100â€“4300 cmâ»1 region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 279, 108021.	2.3	3
90	A new model of monodeuterated ethane (C2H5D) spectrum: Enabling sensitive constraints on the D/H in ethane emission in comets. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 255, 107225.	2.3	2

#	Article	IF	Citations
91	Spectrometric measurements of atmospheric propane (C₃H₈). Atmospheric Chemistry and Physics, 2021, 21, 10727-10743.	4.9	2
92	A collaborative 14NH3 IR spectroscopic analysis at 6000 cmâˆ’1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 280, 108076.	2.3	2
93	New Constraints on Titanâ€™s Stratospheric n-Butane Abundance. Planetary Science Journal, 2022, 3, 59.	3.6	2
94	Corrigendum to â€œAbsorption coefficient (ABSCO) tables for the Orbiting Carbon Observatories: Version 5.1â€•[J. Quant. Spectrosc. Radiat. Transf. 255 (2020) 107217]. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 257, 107333.	2.3	1
95	Spectral Line Parameters for the Î½[sub 9] Band of Ethane. , 2010, , .		0
96	Quantum IR line list of NH3 and isotopologues for ISM and dwarf studies. Proceedings of the International Astronomical Union, 2012, 8, 248-248.	0.0	0
97	Precise Near-Infrared Radial Velocities. Proceedings of the International Astronomical Union, 2015, 10, 286-287.	0.0	0
98	Fourier Transform Spectroscopy of two trace gases namely Methane and Carbon monoxide for planetary and atmospheric research application. Journal of Physics: Conference Series, 2017, 810, 012008.	0.4	0