Keeyoon Sung

List of Publications by Year
in descending order

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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 HITRAN2020 molecular spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 277, 107949.	2.3	770
2	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
3	A collaborative 14NH3 IR spectroscopic analysis at 6000 cmâ¯1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 280, 108076.	2.3	2
4	New Constraints on Titanâ€™s Stratospheric n-Butane Abundance. Planetary Science Journal, 2022, 3, 59.	3.6	2
5	Toward 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	1.2	8
6	Spectrometric measurements of atmospheric propane (C₃H₈). Atmospheric Chemistry and Physics, 2021, 21, 10727-10743.	4.9	2
7	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
8	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
9	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
10	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
11	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
12	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
13	Line list of 12CH4 in the 4300â€“4600 cmâ¯1 region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 253, 107061.	2.3	6
14	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
15	Interleaved difference-frequency generation for microcomb spectral densification in the mid-infrared. Optica, 2020, 7, 309.	9.3	18
16	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
17	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
18	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

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19	Update of the HITRAN collision-induced absorption section. Icarus, 2019, 328, 160-175.	2.5	105
20	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
21	Spatial and seasonal variations in C3H hydrocarbon abundance in Titanâ€™s stratosphere from Cassini CIRS observations. Icarus, 2019, 317, 454-469.	2.5	17
22	Atmospheric carbonyl sulfide (OCS) measured remotely by FTIR solar absorption spectrometry. Atmospheric Chemistry and Physics, 2018, 18, 1923-1944.	4.9	8
23	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
24	Measurements of atmospheric ethene by solar absorption FTIR spectrometry. Atmospheric Chemistry and Physics, 2018, 18, 5075-5088.	4.9	6
25	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
26	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
27	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
28	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
29	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
30	Multispectrum analysis of the oxygen A-band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 186, 118-138.	2.3	67
31	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
32	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
33	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
34	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
35	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
36	Measurements and modeling of 16O12C17O spectroscopic parameters at 2 Âµm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 249-264.	2.3	4

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37	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
38	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
39	The HITRAN2016 molecular spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 3-69.	2.3	2,840
40	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
41	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
42	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
43	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
44	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
45	HITRAN spectroscopy evaluation using solar occultation FTIR spectra. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 182, 324-336.	2.3	28
46	The 2015 edition of the GEISA spectroscopic database. Journal of Molecular Spectroscopy, 2016, 327, 31-72.	1.2	311
47	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
48	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
49	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
50	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
51	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
52	Precise Near-Infrared Radial Velocities. Proceedings of the International Astronomical Union, 2015, 10, 286-287.	0.0	0
53	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
54	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

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55	The Î½17 band of C2H5D from 770 to 880cmâ¯1. Journal of Molecular Spectroscopy, 2015, 316, 1-10.	1.2	4
56	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
57	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></mml:mrow> of methyl cyanide, CH3CN. Journal of Molecular Spectroscopy, 2015, 312, 22-37.	1.2	33
58	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
59	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
60	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
61	A cryogenic Herriott cell vacuum-coupled to a Bruker IFS-125HR. Journal of Molecular Spectroscopy, 2014, 304, 12-24.	1.2	25
62	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
63	Line positions and intensities for the Î½12 band of 13C12CH6. Journal of Molecular Spectroscopy, 2014, 301, 28-38.	1.2	4
64	Pressure broadening of oxygen by water. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 133, 190-198.	2.3	15
65	Methane line parameters in the HITRAN2012 database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 130, 201-219.	2.3	121
66	The HITRAN2012 molecular spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 130, 4-50.	2.3	2,810
67	Preliminary modeling of CH3D from 4000 to 4550 cmâ¯1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 114, 1-12.	2.3	33
68	FT-IR measurements of cold C3H8 cross sections at 7â€“15Î¼m for Titan atmosphere. Icarus, 2013, 226, 1499-1513.	2.5	36
69	DETECTION OF PROPENE IN TITAN'S STRATOSPHERE. Astrophysical Journal Letters, 2013, 776, L14.	8.3	84
70	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
71	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
72	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

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73	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
74	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
75	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
76	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
77	High resolution investigation of the 7Î¼m region of the ethane spectrum. Planetary and Space Science, 2012, 60, 93-101.	1.7	18
78	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
79	The 2009 edition of the GEISA spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2395-2445.	2.3	306
80	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
81	H216O line strengths revisited: Î½2 and 2Î½2â€“Î½2 at 6Î¼m. Journal of Molecular Spectroscopy, 2011, 265, 59-68.	1.5	7
82	Spectral Line Parameters for the Î½[sub 9] Band of Ethane. , 2010, , .		0
83	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
84	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
85	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
86	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
87	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
88	The HITRAN 2008 molecular spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 533-572.	2.3	3,129
89	Line strength measurements of carbonyl sulfide (16O12C32S) in the 2v3, v1+2v2+v3, and 4v2+v3 bands. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 2082-2101.	2.3	20
90	Fourier transform infrared spectroscopy measurements of H₂O-broadened half-widths of CO₂ at 4.3ÂΜmThis 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

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91	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
92	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
93	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
94	-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
95	Measurements of O3, NO2and Temperature during the 2004 Canadian Arctic ACE Validation Campaign. Geophysical Research Letters, 2005, 32, .	4.0	43
96	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
97	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
98	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