Semen Mikhailenko

List of Publications by Year
in descending order

99 papers	13,228 citations	126708 33 h-index	39575 94 g-index
102 all docs	102 docs citations	102 times ranked	7673 citing authors

#	Article	IF	Citations
1	The HITRAN 2008 molecular spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 533-572.	1.1	3,129
2	The HITRAN2016 molecular spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 3-69.	1.1	2,840
3	The HITRAN2012 molecular spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 130, 4-50.	1.1	2,810
4	The HITRAN2020 molecular spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 277, 107949.	1.1	770
5	The 2015 edition of the GEISA spectroscopic database. Journal of Molecular Spectroscopy, 2016, 327, 31-72.	0.4	311
6	The 2009 edition of the GEISA spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2395-2445.	1.1	306
7	The 1997 spectroscopic GEISA databank. Journal of Quantitative Spectroscopy and Radiative Transfer, 1999, 62, 205-254.	1.1	237
8	IUPAC critical evaluation of the rotationalâ€“vibrational spectra of water vapor. Part Iâ€”Energy levels and transition wavenumbers for H217O and H218O. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 573-596.	1.1	188
9	IUPAC critical evaluation of the rotationalâ€“vibrational spectra of water vapor. Part II. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 2160-2184.	1.1	178
10	The GEISA spectroscopic database: Current and future archive for Earth and planetary atmosphere studies. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 1043-1059.	1.1	161
11	High sensitivity CW-cavity ring down spectroscopy of water in the region of the 1.5Î¼m atmospheric window. Journal of Molecular Spectroscopy, 2004, 227, 90-108.	0.4	151
12	The 2003 edition of the GEISA/IASI spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2005, 95, 429-467.	1.1	146
13	Fourier transform measurements of water vapor line parameters in the 4200â€“6600cmâˆ’1 region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 105, 326-355.	1.1	117
14	GOSAT-2009 methane spectral line list in the 5550â€“6236cmâˆ’1 range. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 2211-2224.	1.1	79
15	Water Spectra in the Region 4200â€“6250 cmâˆ’1, Extended Analysis of Î½1+Î½2, Î½2+Î½3, and 3Î½2 Bands and Confirmation of Highly Excited States from Flame Spectra and from Atmospheric Long-Path Observations. Journal of Molecular Spectroscopy, 2002, 213, 91-121.	0.4	68
16	Weak water absorption lines around 1.455 and 1.66Î¼m by CW-CRDS. Journal of Molecular Spectroscopy, 2007, 244, 170-178.	0.4	67
17	S&MPO â€“ An information system for ozone spectroscopy on the WEB. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 145, 169-196.	1.1	66
18	Ozone spectroscopy in the electronic ground state: High-resolution spectra analyses and update of line parameters since 2003. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 130, 172-190.	1.1	63

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19	Rotational levels of the (000) and (010) states of D216O from hot emission spectra in the 320â€“860cmâˆ'1 region. Journal of Molecular Spectroscopy, 2004, 224, 32-60.	0.4	50
20	Seven years of IASI ozone retrievals from FORLI: validation with independent total column and vertical profile measurements. Atmospheric Measurement Techniques, 2016, 9, 4327-4353.	1.2	50
21	GOSAT-2014 methane spectral line list. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 154, 63-71.	1.1	48
22	Line Positions and Intensities of the Î½1+ Î½2+ 3Î½3, Î½2+ 4Î½3, and 3Î½1+ 2Î½2Bands of Ozone. Journal of Molecular Spectroscopy, 1996, 180, 227-235.	0.4	44
23	The absorption spectrum of water in the 1.25Î¼m transparency window (7408â€“7920cmâˆ'1). Journal of Molecular Spectroscopy, 2011, 269, 92-103.	0.4	43
24	Absorption spectrum of deuterated water vapor enriched by 18O between 6000 and 9200cmâˆ'1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 653-669.	1.1	43
25	Analysis of the 2Î½1 + 2Î½2 + Î½3 Band of Ozone. Journal of Molecular Spectroscopy, 1995, 171, 583-588.	0.4	41
26	(000) and (010) States of : analysis of rotational transitions in hot emission spectrum in the region. Journal of Molecular Spectroscopy, 2003, 217, 195-211.	0.4	37
27	Isotopic substitution shifts in methane and vibrational band assignment in the 5560â€“6200 cmâˆ'1 region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 964-973.	1.1	37
28	Comb-assisted cavity ring down spectroscopy of 17O enriched water between 7443 and 7921 cmâˆ'1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 206-212.	1.1	37
29	<i>Ab initio</i> predictions and laboratory validation for consistent ozone intensities in the MW, 10 and 5 Î¼m ranges. Journal of Chemical Physics, 2019, 150, 184303.	1.2	37
30	CRDS of water vapor at 0.1Torr between 6886 and 7406cmâˆ'1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2155-2166.	1.1	36
31	Analysis of the first triad of interacting states (020), (100), and (001) of D216O from hot emission spectra. Journal of Molecular Spectroscopy, 2005, 233, 32-59.	0.4	35
32	Global Multi-isotopologue fit of measured rotation and vibrationâ€“rotation line positions of CO in X1Î£+ state and new set of mass-independent Dunham coefficients. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1643-1655.	1.1	35
33	Water vapor line parameters from 6450 to 9400cmâˆ'1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 136, 119-136.	1.1	34
34	An improved line list for water vapor in the 1.5Âµm transparency window by highly sensitive CRDS between 5852 and 6607cmâˆ'1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 130, 69-80.	1.1	33
35	Experimental and theoretical study of absolute intensities of ozone spectral lines in the range 1850â€“2300 cm-1. Journal of Quantitative Spectroscopy and Radiative Transfer, 1994, 52, 341-355.	1.1	32
36	Line Positions and Intensities of the Î½1 + 2Î½2 + Î½3 and 2Î½2 + 2Î½3 Bands of 16O3. Journal of Molecular Spectroscopy, 1994, 166, 365-371.	0.4	32

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37	The 2Î½2Band of Water: Analysis of New FTS Measurements and High-KaTransitions and Energy Levels. Journal of Molecular Spectroscopy, 1997, 184, 330-349.	0.4	32
38	Critical evaluation of measured rotationâ€“vibration transitions and an experimental dataset of energy levels of HD18O. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 597-608.	1.1	30
39	Analysis of the 2Î½1+ Î½2+ 2Î½3Band of Ozone. Journal of Molecular Spectroscopy, 1997, 182, 333-341.	0.4	28
40	Infrared Spectrum of Ozone in the 4600 and 5300 cmâˆ'1Regions: High Order Accidental Resonances through the Analysis of Î½1+ 2Î½2+ 3Î½3âˆ' Î½2, Î½1+ 2Î½2+ 3Î½3, and 4Î½1+ Î½3Bands. Journal of Molecular Spectroscopy, 1997, 185, 408-416.	0.4	27
41	The Î½1+ Î½2+ 2Î½3and Î½2+ 3Î½3Bands of16O3. Journal of Molecular Spectroscopy, 1995, 174, 510-519.	0.4	26
42	Calculation of High Rotation Energies of the Water Molecule Using the Generating Function Model. Journal of Molecular Spectroscopy, 1995, 170, 38-58.	0.4	26
43	Critical evaluation of measured pure-rotation and rotation-vibration line positions and an experimental dataset of energy levels of 12C16O in X1Î£+ state. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 1106-1116.	1.1	26
44	A spectroscopic database for water vapor between 5850 and 8340 cmâˆ'1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 179, 198-216.	1.1	26
45	Analysis of high resolution measurements of the 2Î½1 + 3Î½3 band of ozone: Coriolis interaction with the Î½1 + 3Î½2 + 2Î½3 band. Journal of Quantitative Spectroscopy and Radiative Transfer, 1998, 59, 185-194.	1.1	25
46	The absorption spectrum of water vapor in the 1.25Î¼m atmospheric window (7911â€“8337cmâˆ'1). Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 157, 135-152.	1.1	25
47	Extended Analysis of Line Positions and Intensities of Ozone Bands in the 2900â€“3400 cmâˆ'1 Region. Journal of Molecular Spectroscopy, 2002, 215, 29-41.	0.4	24
48	Spectroscopic parameters for ozone and its isotopes: recent measurements, outstanding issues, and prospects for improvements to HITRAN. Journal of Quantitative Spectroscopy and Radiative Transfer, 2003, 82, 207-218.	1.1	24
49	Comb-Assisted Cavity Ring Down Spectroscopy of 17O enriched water between 6667 and 7443Âcmâˆ'1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 206, 163-171.	1.1	24
50	New Analysis of 2Î½1 + Î½2, Î½1 + Î½2 + Î½3, and Î½2 + 2Î½3 Bands of Ozone in the 2600â€“2900 cmâˆ'1 Region. Journal of Molecular Spectroscopy, 1999, 196, 93-101.	0.4	23
51	(000) and (010) energy levels of the HD18O and molecules from analysis of their Î½2 bands. Journal of Molecular Spectroscopy, 2011, 265, 26-38.	0.4	23
52	The 2Î½2 and 3Î½2âˆ'Î½2 bands of ozone. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 1998, 54, 1935-1945.	2.0	22
53	ICLAS of water in the 770nm transparency window (12746â€“13558cmâˆ'1). Comparison with current experimental and calculated databases. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 2832-2845.	1.1	21
54	Infrared high-resolution spectra of ozone in the range 5500-: analysis of and bands. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, 2559-2569.	0.6	20

#	ARTICLE	IF	CITATIONS
55	An accurate and complete empirical line list for water vapor between 5850 and 7920cmâˆ'1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 140, 48-57.	1.1	20
56	Water vapor absorption line intensities in the 1900â€"6600cmâˆ'1 region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 2687-2696.	1.1	18
57	Fourier transform measurements of H218O and HD18O in the spectral range 1000â€"2300cmâˆ'1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 859-869.	1.1	18
58	Water vapor absorption in the region of the oxygen A-band near 760Ânm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 275, 107847.	1.1	17
59	High resolution infrared spectrum of 16O3: The 3600â€"4300Âcmâˆ'1 range reinvestigated. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 244, 106823.	1.1	16
60	Line positions and energy levels of the 18O substitutions from the HDO/D2O spectra between 5600 and 8800cmâˆ'1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 2185-2196.	1.1	15
61	First Observation of thev2= 3 State of Ozone: The (131) State Through Analysis of Cold and Hot Bands. Journal of Molecular Spectroscopy, 1997, 184, 448-453.	0.4	14
62	Water vapor absorption between 5690 and 8340Âcmâˆ'1: Accurate empirical line centers and validation tests of calculated line intensities. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 245, 106840.	1.1	14
63	Towards the intensity consistency of the ozone bands in the infrared range: Ab initio corrections to the S&MPO database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 272, 107801.	1.1	14
64	CRDS of 17O enriched water between 5850 and 6671 cmâˆ'1: More than 1000 energy levels of H217O and HD17O newly determined. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 177, 108-116.	1.1	13
65	LED-based Fourier transform spectroscopy of H218O in the 15,000â€"16,000 cmâˆ'1 range. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 156, 36-46.	1.1	12
66	Cavity ring down spectroscopy of 17O enriched water vapor nearÂ1.73â€¯Âµm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 222-223, 229-235.	1.1	12
67	Infrared spectra of 16O3 in the 900 - 5600 cmâˆ'1 range revisited: Empirical corrections to the S&MPO and HITRAN2020 line lists. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 276, 107936.	1.1	12
68	First Study of thev2= 3 Dyad {(130), (031)} of Ozone through the Analysis of Hot Bands in the 2300â€"2600 cmâˆ'1Region. Journal of Molecular Spectroscopy, 1998, 187, 70-74.	0.4	11
69	High resolution Fourier transform spectroscopy of HD16O: Line positions, absolute intensities and self broadening coefficients in the 8800â€"11,600cmâˆ'1 spectral region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 878-888.	1.1	11
70	Study of H216O and H218O absorption in the 16,460â€"17,200Âcmâˆ'1 range using LED-based Fourier transform spectroscopy. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 217, 170-177.	1.1	10
71	High Resolution Infrared Spectroscopy in Support of Ozone Atmospheric Monitoring and Validation of the Potential Energy Function. Molecules, 2022, 27, 911.	1.7	10
72	Analysis of experimental data for the first hexad {(040), (120), (200), (002), (021), (101)} of H2O molecule interacting states. Journal of Molecular Structure, 1998, 442, 39-53.	1.8	9

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73	Title is missing!. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 2141-2152.	0.6	9
74	Hot water emission spectra: Rotational energy levels of the (000) and (010) states of HD17O. Journal of Molecular Spectroscopy, 2015, 308-309, 6-19.	0.4	9
75	The absorption spectrum of water vapor in the 2.2 Î¼m transparency window: High sensitivity measurements and spectroscopic database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 189, 407-416.	1.1	9
76	CRDS absorption spectrum of 17O enriched water vapor in the 12,277â€“12,894Âcmâˆ’1 range. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 221, 233-242.	1.1	9
77	New transitions and energy levels of water vapor by high sensitivity CRDS near 1.73 and 1.54â€¯Âµm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 236, 106574.	1.1	8
78	Cavity ring down spectroscopy of water vapour near 750â€‰nm: a test of the HITRAN2020 and W2020 line lists. Molecular Physics, 2022, 120, .	0.8	8
79	Effective dipole-moment operator for nonrigid H2X-type molecules. Application to H2O. Journal of Molecular Structure, 1992, 271, 119-131.	1.8	7
80	New analysis of experimental data for the second hexad (050), (130), (210), (012), (031), (111) of H162O molecule interacting states. Journal of Molecular Structure, 1998, 449, 39-51.	1.8	7
81	The absorption spectrum of water between 13540 and 14070cmâˆ’1: ICLAS detection of weak lines and a complete line list. Journal of Molecular Spectroscopy, 2011, 265, 106-109.	0.4	7
82	The absorption spectrum of H2 18O in the range 13400â€“14460 cmâˆ’1. Optics and Spectroscopy (English) Tj ETQq0 0 0 rgBT /Overlo	0.2	7
83	LED-based Fourier-transform spectroscopy of H2 18O in the range 15000â€“15700 cmâˆ’1. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2013, 115, 814-822.	0.2	7
84	Update of line parameters of ozone in the 2550-2900 cm^âˆ’1 region. Applied Optics, 2008, 47, 4612.	2.1	6
85	RKR potentials of isotopologues of the CO molecule. Optics and Spectroscopy (English Translation of) Tj ETQq1 1 0.784314 rgBT /Overl	0.2	6
86	Isotopically invariant dunham parameters and the potential function of the HCl molecule. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2002, 92, 871-876.	0.2	5
87	The far-infrared spectrum of 18O enriched water vapour (40â€“700Âcmâˆ’1). Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 253, 107105.	1.1	5
88	Validation tests of the W2020 energy levels of water vapor. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 276, 107914.	1.1	5
89	Application of the pade-form hamiltonians for processing of vibration-rotation spectra of diatomic and triatomic molecules. Journal of Molecular Structure, 1990, 218, 291-296.	1.8	4
90	Broadening and shifting of vibrational-rotational lines corresponding to the highly excited rotational states of the water molecule. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.2	4

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91	Inventory of data included in HITRAN2012 edition for water vapor between 6450 and 9400 cmâˆ'1. Journal of Molecular Spectroscopy, 2016, 327, 159-170.	0.4	4
92	New measurements and analysis of the high-resolution water vapor spectrum in the region of ν 1 , ν 3 , and 2ν 2 bands. , 1994, 2205, 264.		2
93	<title>Analysis of (030),(110), and (011) interacting states of D<formula><inf><roman>2</roman></inf></formula><formula>^{<roman>16</roman>}</formula>O from hot temperature emission spectra</title>. , 2006, , .		2
94	Analysis of Rotationalâ€"Vibrational Transition Frequencies of the HCl Molecule and Its RKR Potentials in the Ground Electronic State. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 617 Td (	0.2	2
95	Application of Pade-forms for fitting and calculating of high-laying rotation-vibration energy levels in diatomic molecules. , 1994, , .		0
96	<title>The procedure of determination of diatomic spectroscopic and molecular parameters from line positions of several isotopomers</title>. , 2006, 6522, 24.		0
97	Improved Dunham coefficients of HCl isotopologues. , 2016, , .		0
98	Nonpolynomial Representation of N2-, O2-, Air-, and Self-Broadening Coefficients of Ozone Lines. Atmospheric and Oceanic Optics, 2021, 34, 293-301.	0.6	0
99	RKR potentials of HCl isotopologues in the ground electronic state. , 2017, , .		0