Paolo Stoppa

List of Publications by Year
in descending order

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69	871	471509	580821
papers	citations	17	25
		h-index	g-index

69	69	69	310
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Anharmonic theoretical simulations of infrared spectra of halogenated organic compounds. Journal of Chemical Physics, 2013, 139, 074310.	3.0	72
2	Anharmonic force field and vibrational dynamics of CH2F2 up to 5000 cmâ¯1 studied by Fourier transform infrared spectroscopy and state-of-the-art ab initio calculations. Journal of Chemical Physics, 2012, 136, 214302.	3.0	37
3	An integrated experimental and quantum-chemical investigation on the vibrational spectra of chlorofluoromethane. Journal of Chemical Physics, 2013, 139, 164302.	3.0	36
4	ATIRS package: A program suite for the rovibrational analysis of infrared spectra of asymmetric top molecules. Journal of Molecular Spectroscopy, 2007, 243, 148-154.	1.2	33
5	Adsorption of F2CCFCl on TiO2 nano-powder: Structures, energetics and vibrational properties from DRIFT spectroscopy and periodic quantum chemical calculations. Applied Surface Science, 2015, 353, 986-994.	6.1	28
6	Infrared Spectra, Integrated Band Intensities, and Anharmonic Force Field of H2C=CHF. Journal of Physical Chemistry A, 2009, 113, 1497-1504.	2.5	26
7	Spectroscopic measurements of SO2 line parameters in the 9.2â€,Î¼m atmospheric region and theoretical determination of self-broadening coefficients. Journal of Chemical Physics, 2010, 132, 044315.	3.0	26
8	Microwave, High-Resolution Infrared, and Quantum Chemical Investigations of CHBrF₂: Ground and v₄ = 1 States. Journal of Physical Chemistry A, 2011, 115, 453-459.	2.5	25
9	Computing sextic centrifugal distortion constants by DFT: A benchmark analysis on halogenated compounds. Journal of Molecular Spectroscopy, 2017, 335, 117-125.	1.2	24
10	Quantum-chemical ab initio investigation of the vibrational spectrum of halon 1113 and its anharmonic force field: A joint experimental and computational approach. Chemical Physics, 2012, 397, 55-64.	1.9	22
11	High-Resolution FTIR, Microwave, and Ab Initio Investigations of CH279BrF:Â Ground,v5= 1, andv6= 1, 2 State Constants. Journal of Physical Chemistry A, 2007, 111, 7090-7097.	2.5	20
12	Toward a Complete Understanding of the Vinyl Fluoride Spectrum in the Atmospheric Region. ChemPhysChem, 2011, 12, 356-363.	2.1	20
13	N2-, O2- and He-collision-induced broadening of sulfur dioxide ro-vibrational lines in the 9.2Î¼m atmospheric window. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 118, 373-379.	3.9	20
14	Spectroscopic study of CHBrF2 up to 9500â€,cmâ¯1: Vibrational analysis, integrated band intensities, and ab initio calculations. Journal of Chemical Physics, 2010, 133, 044310.	3.0	19
15	Accurate Vibrationalâ€“Rotational Parameters and Infrared Intensities of 1-Bromo-1-fluoroethene: A Joint Experimental Analysis and Ab Initio Study. Journal of Physical Chemistry A, 2017, 121, 3305-3317.	2.5	18
16	CO2-, He- and H2-broadening coefficients of SO2 for Î½1 band and ground state transitions for astrophysical applications. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 367-376.	2.3	18
17	Determination of the vinyl fluoride line intensities by TDL spectroscopy: the object oriented approach of Visual Line Shape Fitting Program to line profile analysis. Molecular Physics, 2010, 108, 677-685.	1.7	17
18	A complete listing of sulfur dioxide self-broadening coefficients for atmospheric applications by coupling infrared and microwave spectroscopy to semiclassical calculations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 130, 233-248.	2.3	17

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19	Study of the Vibrational Spectra and Absorption Cross Sections of 1-Chloro-1-fluoroethene by a Joint Experimental and Ab Initio Approach. Journal of Physical Chemistry A, 2016, 120, 8369-8386.	2.5	17
20	Jet-cooled diode laser spectrum and FTIR integrated band intensities of CF₃Br: rovibrational analysis of 2Î½₅and Î½₂â€‰+â€‰Î½₃bands near 9 Î¼m and cross-section measurements in the 450â€“2500 cm^{â^'1}region. Molecular Physics, 2008, 106, 1171-1179.	1.7	16
21	Modelling the anharmonic and Coriolis resonances within the six level polyad involving the Î½4 fundamental in the ro-vibrational spectrum of vinyl fluoride. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1240-1249.	2.3	16
22	Self-, N₂-, O₂-broadening coefficients and line parameters of HFC-32 for Î½₇ band and ground state transitions from infrared and microwave spectroscopy. Molecular Physics, 2014, 112, 2384-2396.	1.7	15
23	Molecular synthons for accurate structural determinations: the equilibrium geometry of 1-chloro-1-fluoroethene. Physical Chemistry Chemical Physics, 2019, 21, 3615-3625.	2.8	15
24	High resolution FTIR spectrum of vinyl fluoride near 9 Î¼m: rovibrational analysis of the ν 7 band. Molecular Physics, 1995, 84, 281-290.	1.7	14
25	The vibrational spectra and normal coordinates analysis of bromofluoromethane, CH 2 BrF. Journal of Molecular Structure, 2000, 517-518, 197-208.	3.6	14
26	Vinyl halides adsorbed on TiO2 surface: FTIR spectroscopy studies and ab initio calculations. Journal of Molecular Structure, 2005, 741, 213-219.	3.6	14
27	The energetic of (CH2F2)2 investigated by TDL IR spectroscopy and DFT computations: From collision induced relaxation of ro-vibrational transitions to non-covalent interactions. Journal of Chemical Physics, 2015, 142, 134310.	3.0	14
28	FTIR spectra of CH2F2 in the 1000â€“1300 cmâ^'1 region: Rovibrational analysis and modeling of the Coriolis and anharmonic resonances in the Î½3, Î½5, Î½7, Î½9 and 2Î½4 polyad. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 175, 8-16.	2.3	14
29	High resolution FTIR study of the Î½5 and Î½6 bands of CH2D 35 Cl: analysis of resonances and determination of ground and upper state constants. Molecular Physics, 2005, 103, 2803-2811.	1.7	13
30	High-Resolution Infrared Study of Vinyl Fluoride in the 750â^'1050 cm-1 Region:â€‰ Rovibrational Analysis and Resonances Involving the Î½8, Î½10, and Î½11 Fundamentals. Journal of Physical Chemistry A, 2006, 110, 13412-13418.	2.5	12
31	Anharmonic resonances in the CH chromophore overtone spectra of CHBrF₂. Molecular Physics, 2011, 109, 2163-2172.	1.7	12
32	Sextic centrifugal distortion constants: interplay of density functional and basis set for accurate yet feasible computations. Molecular Physics, 2020, 118, e1734678.	1.7	12
33	Measurements and Rovibrational Study of the CH2FCl Î½4Band by Tunable Diode Laser Spectrometer. Journal of Molecular Spectroscopy, 1996, 177, 106-114.	1.2	11
34	High-Resolution Study of the Î½3 Band of Chlorofluoromethane by Diode Laser Spectroscopy. Journal of Molecular Spectroscopy, 1993, 159, 481-493.	1.2	10
35	Diode Laser Spectroscopy of the Î½8 Band of Chlorofluoromethane. Journal of Molecular Spectroscopy, 1994, 166, 264-272.	1.2	9
36	High-Resolution Analysis of the Î½4 Absorption Band of CH279BrF. Journal of Molecular Spectroscopy, 2000, 201, 280-284.	1.2	9

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37	Infrared Spectrum and Anharmonic Force Field of CH₂DBr. Journal of Physical Chemistry A, 2009, 113, 6083-6090.	2.5	9
38	The ro-vibrational analysis of thev₄fundamental band of CF₃Br from jet-cooled diode laser and FTIR spectra in the 8.3-Î¼m region. Molecular Physics, 2014, 112, 1899-1909.	1.7	9
39	High Resolution Infrared Spectrum of the Câ€“F Stretching Mode of CH2F37Cl. Journal of Molecular Spectroscopy, 1997, 183, 388-397.	1.2	8
40	Tunable diode laser spectra and analysis of the Î½3 fundamental of. Journal of Molecular Spectroscopy, 2003, 220, 7-12.	1.2	8
41	Rovibrational analysis of the Î½1fundamental of CF3Cl from diode laser spectra in a supersonic slit-jet expansion. Physical Chemistry Chemical Physics, 2003, 5, 3595-3599.	2.8	8
42	The Spectroscopic Characterization of Halogenated Pollutants through the Interplay between Theory and Experiment: Application to R1122. Molecules, 2022, 27, 748.	3.8	8
43	A Fourier transform infrared study of CH2=CHF in the v 4 band region near 1650 cm-1. Molecular Physics, 1996, 87, 581-591.	1.7	7
44	Infrared Laser Spectroscopy of the Î½4and Î½9Band System of CH2F37Cl. Journal of Molecular Spectroscopy, 1999, 194, 73-78.	1.2	7
45	High-Resolution FTIR Spectrum of Vinyl Fluoride: Rovibrational Analysis of the Torsion Mode at 712 cmâ¯1. Journal of Molecular Spectroscopy, 1995, 171, 504-512.	1.2	6
46	Laser infrared spectroscopy of vinyl fluoride in the 1280â€“1400â€‰cmâ¯1region. Molecular Physics, 2005, 103, 657-666.	1.7	6
47	Spectroscopic constants of the ground and lower vibrational states of CH281BrF: A combined high resolution infrared and microwave study. Journal of Molecular Spectroscopy, 2007, 246, 126-132.	1.2	6
48	High-resolution FTIR spectrum of CH₂D⁷⁹Br: the ground,v₅=1 andv₉=1 state constants. Molecular Physics, 2010, 108, 733-738.	1.7	6
49	High-resolution FTIR spectroscopy of HCFC-31 in the 950â¯1160 cm^{â¯1}region: rovibrational analysis and resonances in the Î½₄, Î½₉and Î½₅+Î½₆bands of CH₂³⁵ClF. Molecular Physics, 2015, 113, 3683-3690.	1.7	6
50	Insights into the interaction between CH2F2 and titanium dioxide: DRIFT spectroscopy and DFT analysis of the adsorption energetics. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 136, 1614-1620.	3.9	6
51	Diode laser spectra and rovibrational analysis of theÎ½₄fundamental of. Molecular Physics, 2006, 104, 3187-3192.	1.7	5
52	High resolution infrared synchrotron study of CH2D81Br: ground state constants and analysis of the Î½5, Î½6and Î½9fundamentals. Molecular Physics, 2012, 110, 2063-2069.	1.7	5
53	High resolution FTIR spectroscopy of chlorofluoromethane near 13â€‰Âµm: rovibrational analysis and resonances of Î½₅and 2Î½₆bands in ClF and ClF. Molecular Physics, 2013, 111, 525-534.	1.7	5
54	High-resolution millimeter-wave spectroscopy of CH2DCl: Paving the way for future astronomical observations of chloromethane isotopologues. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 248, 106982.	2.3	5

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55	Spectroscopy of a low global warming power refrigerant. Infrared and millimeter-wave spectra of trifluoroethene (HFO-1123) in the ground and some vibrational excited states. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 248, 106980.	2.3	5
56	High resolution FTIR spectroscopy of CH279BrF: Analysis of the Î½8 fundamental band. Journal of Molecular Spectroscopy, 2008, 251, 123-128.	1.2	4
57	High-resolution infrared spectroscopy of CH₂⁸¹BrF near 8ÂÎ¼m: rovibrational analysis of the Î½₃ and Î½₈ fundamentals and resonances with the dark states 2Î½₅ and Î½₆ + Î½₉. Molecular Physics, 2014, 112, 1799-1807.	1.7	4
58	Line-by-line spectroscopic parameters of HFC-32 ro-vibrational transitions within the atmospheric window around 8.2â€Î¼m. Journal of Molecular Spectroscopy, 2018, 348, 57-63.	1.2	4
59	Experimental and theoretical studies of the vibrational spectra of cis-1-bromo-2-fluoroethene. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2004, 60, 1967-1975.	3.9	3
60	Experimental and theoretical studies of the vibrational spectra of CHD₂Br. Molecular Physics, 2012, 110, 2091-2102.	1.7	3
61	Collision induced broadening of Î½1 band and ground state spectral lines of sulfur dioxide perturbed by N2 and O2. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 198, 155-163.	2.3	3
62	High-resolution infrared spectroscopy of CH₂D⁷⁹Br: ro-vibrational analysis of the Î½₄ and Î½₈ fundamental bands. Molecular Physics, 2017, 115, 1555-1561.	1.7	3
63	High resolution FTIR study of the Î½5, Î½6, and Î½9 fundamental bands of CH2D37Cl. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 270, 107719.	2.3	3
64	High-resolution rovibrational analysis of CH281BrF in the range 920â€“980cmâ˜1. Chemical Physics Letters, 2013, 579, 16-22.	2.6	2
65	Vibrational spectra and normal coordinates analysis of cis-FHCCHI. Journal of Molecular Structure, 2007, 827, 165-175.	3.6	1
66	High-resolution FTIR spectroscopy of CHD279Br: ro-vibrational analysis of the v4 fundamental and determination of the ground state constants. Molecular Physics, 2020, 118, e1581293.	1.7	1
67	FTIR spectrum of vinyl fluoride near 3.6 Î¼m: rovibrational analysis of the Î½4+Î½7 band and modelling Coriolis resonances in a seven-level polyad. Molecular Physics, 2018, 116, 3487-3494.	1.7	0
68	High-resolution infrared spectrum of CHD₂⁷⁹Br: ro-vibrational analysis of the Î½₅ and Î½₉ fundamentals. Molecular Physics, 2020, 118, e1654627.	1.7	0
69	High-resolution infrared and ab initio investigation of CHD279Br: Ro-vibrational analysis of the Î½6 fundamental and the 2Î½6â˜Î½6 hot band. Molecular Physics, 2020, 118, e1766141.	1.7	0