Frank C De Lucia

List of Publications by Year
in descending order

237 papers	8,933 citations	36303 51 h-index	64796 79 g-index
239 all docs	239 docs citations	239 times ranked	3494 citing authors

#	Article	IF	Citations
1	Laser-induced breakdown spectroscopy for detection of explosives residues: a review of recent advances, challenges, and future prospects. Analytical and Bioanalytical Chemistry, 2009, 395, 283-300.	3.7	278
2	Rotational spectrum of transâ€“trans diethyl ether in the ground and three excited vibrational states. Journal of Molecular Spectroscopy, 2005, 233, 231-243.	1.2	241
3	Submillimeter-Wave Spectra and Equilibrium Structures of the Hydrogen Halides. Physical Review A, 1971, 3, 1849-1857.	2.5	214
4	A new analysis and additional measurements of the millimeter and submillimeter spectrum of methanol. Journal of Molecular Spectroscopy, 1984, 108, 42-57.	1.2	194
5	Laser-induced breakdown spectroscopy analysis of energetic materials. Applied Optics, 2003, 42, 6148.	2.1	172
6	Multivariate analysis of laser-induced breakdown spectroscopy chemical signatures for geomaterial classification. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 1009-1019.	2.9	154
7	Double-pulse standoff laser-induced breakdown spectroscopy for versatile hazardous materials detection. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 1405-1411.	2.9	150
8	Standoff Detection of Chemical and Biological Threats Using Laser-Induced Breakdown Spectroscopy. Applied Spectroscopy, 2008, 62, 353-363.	2.2	147
9	A fast scan submillimeter spectroscopic technique. Review of Scientific Instruments, 1997, 68, 1675-1683.	1.3	146
10	Molecular force field and structure of water: Recent microwave results. Journal of Molecular Spectroscopy, 1974, 53, 62-76.	1.2	144
11	Multivariate analysis of standoff laser-induced breakdown spectroscopy spectra for classification of explosive-containing residues. Applied Optics, 2008, 47, G112.	2.1	128
12	Extension of Microwave Absorption Spectroscopy to 0.37-mm Wavelength. Physical Review Letters, 1970, 25, 1397-1399.	7.8	127
13	Investigation of statistics strategies for improving the discriminating power of laser-induced breakdown spectroscopy for chemical and biological warfare agent simulants. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2005, 60, 1217-1224.	2.9	124
14	Laser-induced breakdown spectroscopy (LIBS) â€“ an emerging field-portable sensor technology for real-time, in-situ geochemical and environmental analysis. Geochemistry: Exploration, Environment, Analysis, 2005, 5, 21-28.	0.9	124
15	Submillimeter Microwave Spectrum ofH2O16. Physical Review A, 1972, 5, 487-490.	2.5	123
16	The production of large concentrations of molecular ions in the lengthened negative glow region of a discharge. Journal of Chemical Physics, 1983, 78, 2312-2316.	3.0	117
17	Application of the Theory of Irreducible Tensor Operators to Molecular Hyperfine Structure. American Journal of Physics, 1971, 39, 1433-1454.	0.7	110
18	Molecular force field and structure of hydrogen sulfide: recent microwave results. Journal of Molecular Structure, 1975, 28, 237-246.	3.6	110

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19	Continuously tunable coherent spectroscopy for the 0.1â€“1.0â€‰THz region. Applied Physics Letters, 1983, 42, 309-310.	3.3	104
20	Measurement of Pressure-Broadening Parameters for the CO-He System at 4 K. Physical Review Letters, 1984, 53, 2555-2558.	7.8	98
21	Rotational spectra of NH3 and ND3 in the 0.5-mm wavelength region. Journal of Molecular Spectroscopy, 1971, 39, 94-97.	1.2	97
22	Double pulse laser-induced breakdown spectroscopy of explosives: Initial study towards improved discrimination. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 1399-1404.	2.9	93
23	The hidden kernel of molecular quasi-linearity: Quantum monodromy. Journal of Molecular Structure, 2006, 798, 1-26.	3.6	89
24	Laser-induced breakdown spectroscopy analysis of minerals: Carbonates and silicates. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 1528-1536.	2.9	88
25	Submillimeter spectroscopy for chemical analysis with absolute specificity. Optics Letters, 2010, 35, 1533.	3.3	84
26	Compact Submillimeter/Terahertz Gas Sensor With Efficient Gas Collection, Preconcentration, and ppt Sensitivity. IEEE Sensors Journal, 2012, 12, 2565-2574.	4.7	82
27	The millimeter- and submillimeter-wave spectrum of the transâ€“gauche conformer of diethyl ether. Journal of Molecular Spectroscopy, 2004, 228, 314-328.	1.2	81
28	A study of the rotational-torsional spectrum of hydrogen peroxide between 80 and 700 GHz. Journal of Molecular Spectroscopy, 1981, 85, 120-130.	1.2	78
29	The millimeter and submillimeter spectrum of NO2: A study of electronic effects in a nonsinglet light asymmetric rotor. Journal of Chemical Physics, 1982, 77, 92-107.	3.0	78
30	The Millimeter- and Submillimeter-Wave Spectrum ofGauche-Ethyl Alcohol. Journal of Molecular Spectroscopy, 1996, 175, 246-261.	1.2	77
31	Evaluation of femtosecond laser-induced breakdown spectroscopy for explosive residue detection. Optics Express, 2009, 17, 419.	3.4	71
32	Millimeter and Submillimeter Wave Rotational Spectrum and Centrifugal Distortion Effects of HDO. Journal of Chemical Physics, 1971, 55, 5334-5339.	3.0	70
33	Acetone: Laboratory Assignments and Predictions through 620 GH z for the Vibrationalâ€Torsional Ground State. Astrophysical Journal, Supplement Series, 2002, 142, 145-151.	7.7	70
34	Dimethyl Ether: Laboratory Assignments and Predictions through 600 GHz. Astrophysical Journal, 1998, 500, 1059-1063.	4.5	68
35	Gauche Ethyl Alcohol: Laboratory Assignments and Interstellar Identification. Astrophysical Journal, 1997, 480, 420-431.	4.5	67
36	Submillimeter spectroscopy of the major isotopes of water. Journal of Molecular Spectroscopy, 1984, 105, 139-155.	1.2	66

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37	The analysis of the rotational spectrum of methanol to microwave accuracy. Journal of Molecular Spectroscopy, 1989, 134, 395-411.	1.2	66
38	The pressure broadening of the 31,3-22,0 transition of water between 80 and 600 K. Journal of Molecular Spectroscopy, 1990, 143, 346-358.	1.2	62
39	Laser-induced breakdown spectroscopy analysis of complex silicate mineralsâ€"beryl. Analytical and Bioanalytical Chemistry, 2006, 385, 263-271.	3.7	62
40	Influence of variable selection on partial least squares discriminant analysis models for explosive residue classification. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2011, 66, 122-128.	2.9	62
41	Millimeter and submillimeter wave rotational spectrum and centrifugal distortion effects of D2S. Journal of Molecular Spectroscopy, 1972, 41, 123-136.	1.2	61
42	The millimeter and submillimeter spectrum of CN in its first four vibrational states. Journal of Molecular Spectroscopy, 1983, 99, 35-46.	1.2	60
43	Very low temperature spectroscopy: The pressure broadening coefficients for COâ€“He between 4.3 and 1.7 K. Journal of Chemical Physics, 1988, 89, 1923-1928.	3.0	60
44	The Millimeter- and Submillimeter-Wave Spectrum of trans-Ethyl Alcohol. Journal of Physical and Chemical Reference Data, 1995, 24, 1-32.	4.2	59
45	Pressure broadening and line shift measurements of carbon monoxide in collision with helium from 1 to 600 K. Journal of Chemical Physics, 1996, 105, 3994-4004.	3.0	59
46	Experimental Confirmation of Quantum Monodromy: The Millimeter Wave Spectrum of Cyanogen Isothiocyanate NCNCS. Physical Review Letters, 2005, 95, 243002.	7.8	58
47	The Millimeterâ€•and Submillimeterâ€wave Spectrum of Methyl Formate (HCOOCH3). Astrophysical Journal, 1999, 521, 255-260.	4.5	58
48	Active and passive imaging in the THz spectral region: phenomenology, dynamic range, modes, and illumination. Journal of the Optical Society of America B: Optical Physics, 2008, 25, 1523.	2.1	57
49	Microwave spectrum and centrifugal distortion effects of HDS. Journal of Molecular Spectroscopy, 1971, 40, 125-136.	1.2	54
50	Millimeter- and submillimeter-wave length spectrum of the partially deuterated ammonias; A study of inversion, centrifugal distortion, and rotation-inversion interactions. Journal of Molecular Spectroscopy, 1975, 54, 200-214.	1.2	53
51	The laboratory millimeter and submillimeter spectrum of HCO. Journal of Chemical Physics, 1984, 80, 95-101.	3.0	53
52	Microwave rotation-inversion spectrum ofNT3. Physical Review A, 1974, 9, 12-16.	2.5	52
53	Classification of explosive residues on organic substrates using laser induced breakdown spectroscopy. Applied Optics, 2012, 51, B83.	1.8	52
54	Microwave spectrum and ground state energy levels of H217O. Journal of Molecular Spectroscopy, 1975, 56, 138-145.	1.2	51

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55	The submillimeter: A spectroscopistâ€™s view. Journal of Molecular Spectroscopy, 2010, 261, 1-17.	1.2	51
56	Determination of precise relative energies of conformers of n-propanol by rotational spectroscopy. Physical Chemistry Chemical Physics, 2010, 12, 8329.	2.8	51
57	Millimeter and submillimeter spectra of HCO+ and DCO+. Journal of Chemical Physics, 1981, 75, 4169-4170.	3.0	50
58	The millimeter and submillimeter spectrum of HO2: The effects of unpaired electronic spin in a light asymmetric rotor. Journal of Molecular Spectroscopy, 1982, 94, 426-436.	1.2	49
59	Millimeterâ€•and submillimeterâ€wave spectrum and molecular constants of cuprous chloride. Journal of Chemical Physics, 1975, 62, 1040-1043.	3.0	48
60	The pure rotational spectrum of water vaporâ€”A millimeter, submillimeter, and far infrared analysis. Journal of Infrared, Millimeter and Terahertz Waves, 1983, 4, 505-539.	0.6	47
61	The absorption spectroscopy of the lowest pseudorotational states of tetrahydrofuran. Journal of Chemical Physics, 2003, 118, 3589-3599.	3.0	47
62	Millimeterwave spectroscopy of active laser plasmas; the excited vibrational states of HCN. Journal of Chemical Physics, 1999, 67, 4262.	3.0	46
63	Fast analysis of gases in the submillimeterâˆ•terahertz with â€œabsoluteâ€•specificity. Applied Physics Letters, 2005, 86, 154105.	3.3	45
64	Influence of Molecular Structure on the Laser-Induced Plasma Emission of the Explosive RDX and Organic Polymers. Journal of Physical Chemistry A, 2013, 117, 9555-9563.	2.5	45
65	The Millimeterâ€•and Submillimeterâ€Wave Spectrum of Glycolaldehyde (CH 2 OHCHO). Astrophysical Journal, Supplement Series, 2001, 134, 319-321.	7.7	43
66	trans â€Ethyl Methyl Ether: Assignments and Predictions up to 400 GHz for the Vibrationalâ€“Torsional Ground State. Astrophysical Journal, Supplement Series, 2003, 144, 277-286.	7.7	43
67	The submillimeter wave spectrum of 32S16O2, 32S16O2(Î½2), and 34S16O2. Journal of Molecular Spectroscopy, 1985, 111, 66-72.	1.2	42
68	The millimeter-wave spectrum of methyl mercaptan. Journal of Molecular Spectroscopy, 1986, 116, 120-135.	1.2	42
69	Collisionally cooled spectroscopy: Pressure broadening below 5 K. Journal of Chemical Physics, 1989, 91, 122-125.	3.0	41
70	The laboratory millimeter- and submillimeter-wave spectrum of CH3OD. Astrophysical Journal, Supplement Series, 1988, 67, 135.	7.7	41
71	Microwave Spectrum and Centrifugal Distortion Effects of H2S. Journal of Chemical Physics, 1972, 56, 4581-4584.	3.0	40
72	Millimeter and submillimeter spectrum of NO+. Journal of Chemical Physics, 1982, 77, 4261-4262.	3.0	40

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73	Submillimeter spectra and molecular constants of6LiH,7LiH,6LiD, and7LiD. Journal of Chemical Physics, 1984, 81, 4893-4897.	3.0	40
74	The Millimeterâ€•and Submillimeterâ€Wave Spectrum of the G t Conformer of n â€Propanol (n â€CH 3 CH 2 CH) Tj ETQq0 0 0 rgBT /Ov	7.7	40
75	Millimeter- and Submillimeter-Wavelength Spectrum and Molecular Constants ofT2O. Physical Review A, 1973, 8, 2785-2791.	2.5	39
76	Use of laser induced breakdown spectroscopy in the determination of gem provenance: beryls. Applied Optics, 2008, 47, G72.	2.1	39
77	Millimeter- and submillimeter-wave spectrum of highly excited states of water. Astrophysical Journal, 1991, 379, L41.	4.5	38
78	Millimeterâ€Wave and Vibrational State Assignments for the Rotational Spectrum of Glycolaldehyde. Astrophysical Journal, Supplement Series, 2005, 158, 188-192.	7.7	36
79	Simultaneous analysis of rovibrational and rotational data for the 41, 51, 61, 72, 81, 7191 and 92 states of HCOOH. Journal of Molecular Structure, 2006, 795, 54-77.	3.6	36
80	Submillimeter Microwave Spectrum ofH2O18. Physical Review A, 1972, 6, 1324-1326.	2.5	35
81	The millimeter-wave spectrum of acetaldehyde in its two lowest torsional states. Journal of Molecular Spectroscopy, 1986, 120, 298-310.	1.2	35
82	Very low temperature spectroscopy: The pressure broadening coefficients for CH3F between 4.2 and 1.9 K. Journal of Chemical Physics, 1988, 89, 6147-6149.	3.0	35
83	Rapid analysis of energetic and geo-materials using LIBS. Materials Today, 2011, 14, 274-281.	14.2	35
84	An extension of the high-resolution millimeter- and submillimeter-wave spectrum of methanol to high angular momentum quantum numbers. Astrophysical Journal, Supplement Series, 1992, 82, 405.	7.7	35
85	Millimeter spectrum and molecular constants of silicon monoxide. Physical Review A, 1977, 15, 223-226.	2.5	34
86	Measurement of the J=0â†'1 rotational transitions of three isotopes of ArD+. Journal of Chemical Physics, 1983, 79, 2093-2095.	3.0	34
87	Millimeterâ€wave optical double resonance spectra of NO2: How good a quantum number is N?. Journal of Chemical Physics, 1986, 85, 4297-4303.	3.0	34
88	The Hydrogen and Helium Pressure Broadening at Planetary Temperatures of the 183 and 380 GHz Transitions of Water Vapor. Icarus, 1993, 102, 232-239.	2.5	33
89	Laboratory measurement of the P(2,1) submillimeter transition frequency of H3O+. Journal of Chemical Physics, 1985, 83, 1428-1429.	3.0	32
90	Theoretical and experimental investigation of pressure broadening and line shift of carbon monoxide in collision with hydrogen between 8 and 600 K. Journal of Chemical Physics, 2000, 112, 4069-4075.	3.0	32

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91	The use of CAAARS (Computer Aided Assignment of Asymmetric Rotor Spectra) in the analysis of rotational spectra. Journal of Molecular Structure, 2005, 742, 229-236.	3.6	32
92	The Millimeterâ€•and Submillimeterâ€Wave Spectrum of Methyl Carbamate [CH 3 OC(:O)NH 2]. Astrophysical Journal, Supplement Series, 2007, 169, 28-36.	7.7	32
93	Submillimeter-wave spectra of H12COOCH3 and H13COOCH3 in excited CH3 torsional states. Journal of Molecular Spectroscopy, 2008, 251, 293-300.	1.2	32
94	Microwave spectrum and substitutional structure of CH2DF. Journal of Molecular Structure, 1976, 32, 29-36.	3.6	31
95	Centrifugal distortion analysis of the ground vibrational states of H217O and H218O. Journal of Molecular Spectroscopy, 1978, 70, 263-269.	1.2	31
96	Direct Measurement of Rotationally Inelastic Cross Sections at Astrophysical and Quantum Collisional Temperatures. Physical Review Letters, 1998, 81, 305-308.	7.8	31
97	The Energy Levels of the Î½5/2Î½9 Dyad of HNO3 from Millimeter and Submillimeter Rotational Spectroscopy. Journal of Molecular Spectroscopy, 2001, 208, 121-135.	1.2	31
98	Millimeter- and submillimeter-wavelength spectra and molecular constants of HTO and DTO. Physical Review A, 1974, 10, 1072-1081.	2.5	30
99	Millimeter-wave spectrum, centrifugal distortion analysis, and energy levels of HNO3. Journal of Molecular Spectroscopy, 1979, 76, 131-141.	1.2	30
100	Laser-induced breakdown spectroscopy for the classification of unknown powders. Applied Optics, 2008, 47, G80.	2.1	30
101	Highâ€Frequency Rotational Spectrum of Thioformaldehyde, H₂CS, in the Ground Vibrational State. Astrophysical Journal, Supplement Series, 2008, 176, 543-550.	7.7	30
102	The millimeter wave spectra of NaH and NaD. Journal of Chemical Physics, 1981, 75, 4753-4757.	3.0	29
103	The millimeter and submillimeter spectrum of CF+. Journal of Chemical Physics, 1986, 84, 2427-2428.	3.0	29
104	The Millimeterâ€•and Submillimeterâ€Wave Spectrum of Methyl Mercaptan (CH3SH). Astrophysical Journal, 1999, 510, 789-794.	4.5	29
105	Spectroscopy in the Terahertz Spectral Region. Springer Series in Optical Sciences, 2003, , 39-115.	0.7	29
106	Broadband absolute absorption measurements of atmospheric continua with millimeter wave cavity ringdown spectroscopy. Review of Scientific Instruments, 2005, 76, 083103.	1.3	29
107	Detection of indoor biological hazards using the man-portable laser induced breakdown spectrometer. Applied Optics, 2008, 47, G48.	2.1	29
108	Laboratory spectroscopic study of isotopic thioformaldehyde, H₂CS, and determination of its equilibrium structure. Astronomy and Astrophysics, 2019, 621, A143.	5.1	29

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109	An Experimental Approach to the Prediction of Complete Millimeter and Submillimeter Spectra at Astrophysical Temperatures: Applications to Confusionâ€limited Astrophysical Observations. Astrophysical Journal, 2007, 656, 621-628.	4.5	29
110	Millimeter- and submillimeter-wave spectra of the ONOâ€² bending mode (Î½7) in nitric acid. Journal of Molecular Spectroscopy, 1988, 128, 62-67.	1.2	28
111	Submillimeter wave vibrationâ€“rotation spectroscopy of Arâ‹…CO and Arâ‹…ND3. Journal of Chemical Physics, 2001, 114, 6100-6106.	3.0	28
112	A NEW APPROACH TO ASTROPHYSICAL SPECTRA: THE COMPLETE EXPERIMENTAL SPECTRUM OF ETHYL CYANIDE (CH₃CH₂CN) BETWEEN 570 AND 645 GHZ. Astrophysical Journal, 2010, 714, 476-486.	4.5	28
113	Millimeterâ€wave spectrum and molecular constants of cuprous bromide. Journal of Chemical Physics, 1975, 63, 2724-2726.	3.0	27
114	The higher Kâ€˜1 states of hydrogen peroxide. Journal of Molecular Spectroscopy, 1981, 87, 571-574.	1.2	27
115	A Double Resonance Approach to Submillimeter/Terahertz Remote Sensing at Atmospheric Pressure. IEEE Journal of Quantum Electronics, 2009, 45, 163-170.	1.9	27
116	Study of the Î½3 and 2Î½3 â†•Î½3 bands of 12CH3F by infrared laser sideband and submillimeter-wave spectroscopy. Journal of Molecular Spectroscopy, 1987, 123, 145-160.	1.2	26
117	Quantum scattering calculations for H2Sâ€“He between 1â€“600 K in comparison with pressure broadening, shift, and time resolved double resonance experiments. Journal of Chemical Physics, 1999, 111, 8893-8903.	3.0	26
118	HOW COMPLETE ARE ASTROPHYSICAL CATALOGS FOR THE MILLIMETER AND SUBMILLIMETER SPECTRAL REGION?. Astrophysical Journal Letters, 2010, 725, L11-L14.	8.3	26
119	The Millimeterâ€•and Submillimeterâ€Wave Spectrum of Ethylene Oxide (câ€C2H4O). Astrophysical Journal, 1998, 499, 517-519.	4.5	26
120	The millimeter and submillimeter spectrum of CF2 and its production in a dc glow discharge. Journal of Molecular Spectroscopy, 1982, 94, 363-368.	1.2	25
121	Collisional cooling of the NO-He system The pressure broadening cross sections between 4Â·3 and 1Â·8 K. Molecular Physics, 1989, 67, 455-463.	1.7	25
122	Comprehensive analysis of the FASSST rotational spectrum of S(CN)2. Journal of Molecular Spectroscopy, 2007, 246, 39-56.	1.2	25
123	Millimeterâ€•and submillimeterâ€wave spectrum and molecular constants of cuprous iodide. Journal of Chemical Physics, 1975, 62, 4796-4798.	3.0	24
124	Millimeter and submillimeter wave spectra of HNO2 (cis), HNO2 (trans), and HNO3. Journal of Molecular Spectroscopy, 1981, 88, 431-433.	1.2	24
125	The millimeter and submillimeter spectra of the ground state and excited , , , and vibrational states of. Journal of Molecular Spectroscopy, 2003, 218, 127-130.	1.2	24
126	Rotational spectrum of acetone, CH3COCH3, in the first torsional excited state. Journal of Molecular Structure, 2006, 795, 173-178.	3.6	24

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127	The Millimeterâ€•and Submillimeterâ€Wave Spectrum of¹³C₁â€Methyl Formate (H¹³COOCH₃) in the Ground State. Astrophysical Journal, Supplement Series, 2008, 175, 138-146.	7.7	24
128	A spectroscopic investigation of the OCS discharge system. Journal of Chemical Physics, 1981, 74, 3139-3147.	3.0	23
129	The rotational spectrum of nitric acid: The first five vibrational states. Journal of Quantitative Spectroscopy and Radiative Transfer, 1988, 40, 39-46.	2.3	23
130	Science and Technology in the Submillimeter Region. Optics and Photonics News, 2003, 14, 44.	0.5	23
131	Femtosecond demodulation source for highâ€resolution submillimeter spectroscopy. Applied Physics Letters, 1995, 67, 3810-3812.	3.3	22
132	Rotational Spectrum of HNO3in the Î½5and 2Î½9Vibrational States. Journal of Molecular Spectroscopy, 1996, 175, 395-410.	1.2	22
133	Nuclear shielding and magnetic hyperfine structure of hydrogen cyanide. Journal of Molecular Spectroscopy, 1974, 50, 38-44.	1.2	21
134	Pressure broadening of the millimeter and submillimeter wave spectra of nitric acid by oxygen and nitrogen. Journal of Molecular Spectroscopy, 1988, 128, 108-116.	1.2	21
135	Rotational state dependence of collision induced line broadening and shift at low temperature. Journal of Chemical Physics, 1999, 110, 2087-2098.	3.0	21
136	Noise, detectors, and submillimeterâ€“terahertz system performance in nonambient environments. Journal of the Optical Society of America B: Optical Physics, 2004, 21, 1273.	2.1	21
137	Millimeter and submillimeter wave rotational spectrum of pyridine in the ground and excited vibrational states. Journal of Molecular Spectroscopy, 2005, 232, 61-65.	1.2	21
138	The Millimeterâ€•and Submillimeterâ€Wave Spectrum of Iso â€Propanol [(CH 3) 2 CHOH]. Astrophysical Journal, Supplement Series, 2006, 166, 650-658.	7.7	21
139	The rotational spectrum of chlorine nitrate (ClONO2) in the four lowest nÎ½9 polyads. Journal of Molecular Spectroscopy, 2009, 254, 78-86.	1.2	21
140	THE MILLIMETER- AND SUBMILLIMETER-WAVE SPECTRUM OF THETRANSANDGAUCHECONFORMERS OF ETHYL FORMATE. Astrophysical Journal, Supplement Series, 2009, 181, 433-438.	7.7	21
141	The laboratory millimeter- and submillimeter-wave spectrum of C-13 methanol. Astrophysical Journal, Supplement Series, 1987, 64, 703.	7.7	21
142	Extension of high resolution beam maser spectroscopy into the submillimetre wave region. Canadian Journal of Physics, 1977, 55, 1115-1123.	1.1	20
143	Pressure broadening cross sections for the H2Sî—¸He system in the temperature region between 4.3 and 1.8 K. Journal of Molecular Spectroscopy, 1989, 134, 240-242.	1.2	20
144	Very low temperature helium pressure broadening of DCl in a collisionally cooled cell. Journal of Chemical Physics, 1992, 96, 898-902.	3.0	20

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145	Beam maser spectrum of the 111â†'101transition of ND2H and the hyperfine structure of the ammonia molecule. Molecular Physics, 1976, 31, 265-287.	1.7	19
146	Millimeter- and submillimeter-wave spectra of the NO' stretching mode (Î½6) in nitric acid. Journal of Molecular Spectroscopy, 1988, 128, 306-308.	1.2	19
147	The Millimeterâ€•and Submillimeterâ€Wave Spectrum of the transâ€trans Conformer of Diethyl Ether (C 2 H) Tj ETQq1 1 0.784314 rgBT	1.7	19
148	Analysis of the FASSST rotational spectrum of NCNCS in view of quantum monodromy. Physical Chemistry Chemical Physics, 2010, 12, 8158.	2.8	19
149	An analysis of a preliminary ALMA Orion KL spectrum via the use of complete experimental spectra from the laboratory. Journal of Molecular Spectroscopy, 2012, 280, 11-20.	1.2	19
150	The study of laser processes by millimeter and submillimeter microwave spectroscopy. Applied Physics Letters, 1977, 31, 606-608.	3.3	18
151	Rotational spectrum of acetone, CH3COCH3, in the Î½17 torsional excited state. Journal of Molecular Spectroscopy, 2008, 251, 180-184.	1.2	17
152	C-type transitions in methyl formate. Astrophysical Journal, 1987, 318, 873.	4.5	17
153	The millimeter-wave spectrum of CF2Cl2. Journal of Molecular Spectroscopy, 1986, 118, 548-549.	1.2	16
154	Very low temperature spectroscopy: The helium pressure broadening coefficients below 4.3 K for the higher lying states of CH3F. Journal of Molecular Spectroscopy, 1989, 133, 182-192.	1.2	16
155	THE COMPLETE, TEMPERATURE-RESOLVED EXPERIMENTAL SPECTRUM OF ETHYL CYANIDE (CH₃CH₂CN) BETWEEN 210 AND 270 GHz. Astrophysical Journal, 2010, 725, 1682-1687.	4.5	16
156	Hyperfine spectra and molecular constants of D2S. Journal of Molecular Spectroscopy, 1971, 40, 52-58.	1.2	15
157	A timeâ€resolved study of rotational energy transfer into A and E symmetry species of 13CH3F. Journal of Chemical Physics, 1989, 90, 3520-3527.	3.0	15
158	Hydrogen and helium pressure broadening of CH3F between 1 K and 600 K. Journal of Molecular Structure, 1995, 352-353, 245-251.	3.6	15
159	FTIR and millimeter wave investigation of the 71 and 91 states of formic acid HCOOH and H13COOH. Journal of Molecular Spectroscopy, 2006, 240, 188-201.	1.2	15
160	Laboratory measurements of dry air atmospheric absorption with a millimeter wave cavity ringdown spectrometer. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 108, 256-276.	2.3	15
161	Dynamics of the HCN discharge laser. Applied Physics Letters, 1985, 46, 631-633.	3.3	14
162	The pressure broadening of SO2 by N2, O2, He, and H2 between 90 and 500 K. Journal of Quantitative Spectroscopy and Radiative Transfer, 1996, 56, 109-117.	2.3	14

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163	Pressure broadening of HNO3 by N2 and O2: an intercomparison of results in the millimeter wave region. Journal of Quantitative Spectroscopy and Radiative Transfer, 1998, 60, 77-84.	2.3	14
164	The millimeter wave spectrum of cis-HCOOH in the ground state and in the v9=1 and v7=1 excited vibrational states, and cis-H13COOH in the ground state. Journal of Molecular Structure, 2006, 795, 42-48.	3.6	14
165	Recent advances in pressure broadening: experiment and theory. Journal of Molecular Structure, 1988, 190, 435-446.	3.6	13
166	The millimeter and submillimeter wave spectrum of the Î½8 + Î½9 state of HNO3. Journal of Molecular Spectroscopy, 1990, 139, 241-243.	1.2	13
167	Helium and Hydrogen Induced Rotational Relaxation of H2CO Observed at Temperatures of the Interstellar Medium. Astrophysical Journal, 2000, 543, 271-274.	4.5	13
168	85-to-127 GHz CMOS transmitter for rotational spectroscopy. , 2014, , .		13
169	Millimeter and Submillimeter-Wave Spectrum of Hydrogen Peroxide in the Ground andv3= 1 Vibrational States. Journal of Molecular Spectroscopy, 1998, 192, 25-31.	1.2	12
170	Spectroscopy of Î£00â†'Î10 Vibrationalâ€"Tunnelingâ€"Rotational Band in Rg Â· ND3 (Rg = Ne, Ar, Kr). Journal of Molecular Spectroscopy, 2002, 214, 202-215.	1.2	12
171	The Millimeterâ€•and Submillimeterâ€Wave Spectrum of Oxiranecarbonitrile. Astrophysical Journal, Supplement Series, 2004, 152, 97-101.	7.7	12
172	Helium induced pressure broadening and shifting of HCN hyperfine transitions between 1.3 and 20 K. Journal of Chemical Physics, 2005, 122, 184319.	3.0	12
173	The rotational spectrum of chlorine nitrate (ClONO2): The Î½5/Î½6Î½9 dyad. Journal of Molecular Spectroscopy, 2007, 243, 1-9.	1.2	12
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