Livio Gianfrani

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Recommended isolated-line profile for representing high-resolution spectroscopic transitions (IUPAC) Tj ETQq1 1 0.784314 rgBT /Overlo	1.9	225
2	Observing the Intrinsic Linewidth of a Quantum-Cascade Laser: Beyond the Schawlow-Townes Limit. Physical Review Letters, 2010, 104, 083904.	7.8	147
3	Advances in laser-based isotope ratio measurements: selected applications. Applied Physics B: Lasers and Optics, 2008, 92, 439-449.	2.2	123
4	Cavity-enhanced absorption spectroscopy of molecular oxygen. Journal of the Optical Society of America B: Optical Physics, 1999, 16, 2247.	2.1	110
5	Recent advances in collisional effects on spectra of molecular gases and their practical consequences. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 213, 178-227.	2.3	85
6	Primary Gas Thermometry by Means of Laser-Absorption Spectroscopy: Determination of the Boltzmann Constant. Physical Review Letters, 2008, 100, 200801.	7.8	83
7	Determination of the Boltzmann Constant by Means of Precision Measurements of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mmultiscripts><mml:mi mathvariant="normal">O</mml:mi><mml:mprescripts /><mml:none /><mml:mn>18</mml:mn></mml:mmultiscripts></mml:math>Line Shapes at<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>1.39</mml:mn><mml:mte	7.8	73
8	Isotope analysis of water by means of near infrared dual-wavelength diode laser spectroscopy. Optics Express, 2003, 11, 1566.	3.4	70
9	Frequency-comb-referenced quantum-cascade laser at 44 Î¼m. Optics Letters, 2007, 32, 988.	3.3	63
10	Velocity effects on the shape of pure H2O isolated lines: Complementary tests of the partially correlated speed-dependent Keilson-Storer model. Journal of Chemical Physics, 2013, 138, 034302.	3.0	61
11	Looking into the volcano with a Mid-IR DFB diode laser and Cavity Enhanced Absorption Spectroscopy. Optics Express, 2006, 14, 11442.	3.4	56
12	Lamb-dip-locked quantum cascade laser for comb-referenced IR absolute frequency measurements. Optics Express, 2008, 16, 11637.	3.4	56
13	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>A</mml:mi><mml:mi>b</mml:mi><mml:mspace width="0.28em" /><mml:mspace width="0.28em" /><mml:mi>i</mml:mi><mml:mi>n</mml:mi><mml:mi>i</mml:mi><mml:mi>t</mml:mi><mml:mi>i</mml:mi><mml:mi>o</mml:mi><m of the spectral shapes of CO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>isolated lin	2.5	56
14	The line shape problem in the near-infrared spectrum of self-colliding CO2 molecules: Experimental investigation and test of semiclassical models. Journal of Chemical Physics, 2009, 130, 184306.	3.0	54
15	Speed-dependent effects in the near-infrared spectrum of self-colliding<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math><mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">O</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>18</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>mo. Physical Revi	2.5	54
16	Test of the Symmetrization Postulate for Spin-0 Particles. Physical Review Letters, 1996, 76, 2840-2843.	7.8	53
17	Determination of the 2H/1H, 17O/16O, and 18O/16O isotope ratios in water by means of tunable diode laser spectroscopy at 1.39 Î¼m. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2002, 58, 2389-2396.	3.9	51
18	High-precision determination of the 13CO2/12CO2 isotope ratio using a portable 2.008-Î¼m diode-laser spectrometer. Applied Physics B: Lasers and Optics, 2003, 77, 119-124.	2.2	50

#	Article	IF	Citations
19	The Boltzmann project. Metrologia, 2018, 55, R1-R20.	1.2	49
20	Coherent phase lock of a 9ÂÎ¼m quantum cascade laser to a 2ÂÎ¼m thulium optical frequency comb. Optics Letters, 2012, 37, 4083.	3.3	48
21	First field determination of the Â¹Â³C/Â¹Â²C isotope ratio in volcanic CO2 by diode-laser. Optics Express, 2004, 12, 6515.	3.4	42
22	Linking the thermodynamic temperature to an optical frequency: recent advances in Doppler broadening thermometry. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150047.	3.4	42
23	High-precision molecular interrogation by direct referencing of a quantum-cascade-laser to a near-infrared frequency comb. Optics Express, 2011, 19, 17520.	3.4	39
24	On the determination of the Boltzmann constant by means of precision molecular spectroscopy in the near-infrared. Comptes Rendus Physique, 2009, 10, 894-906.	0.9	37
25	Collisional-Broadened and Dicke-Narrowed Lineshapes of H216O and H218O Transitions at 1.39 Î¼m. Journal of Molecular Spectroscopy, 2001, 205, 20-27.	1.2	36
26	Mid-infrared quantitative spectroscopy by comb-referencing of a quantum-cascade-laser: Application to the CO2 spectrum at 4.3â€‰Î¼m. Applied Physics Letters, 2011, 99, 251107.	3.3	35
27	Remote sensing of volcanic gases with a DFB-laser-based fiber spectrometer. Applied Physics B: Lasers and Optics, 2000, 70, 467-470.	2.2	34
28	Offset-frequency locking of extended-cavity diode lasers for precision spectroscopy of water at 138~mum. Optics Express, 2010, 18, 21851.	3.4	31
29	Diode laser absorption spectrometry for 13CO2/12CO2 isotope ratio analysis: Investigation on precision and accuracy levels. Applied Physics B: Lasers and Optics, 2005, 81, 863-869.	2.2	30
30	Highly accurate determinations of CO2 line strengths using intensity-stabilized diode laser absorption spectrometry. Journal of Chemical Physics, 2007, 127, 084311.	3.0	30
31	Speed dependence of collision parameters in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mrow><mml:msup><mml:mrow /><mml:mn>18</mml:mn></mml:msup><mml:mi mathvariant="normal">O</mml:mi></mml:mrow></mml:mrow></mml:math>near-IR spectrum: [illegible]ation. Physical Review A, 2012, 85, .	2.5	30
32	Precision spectroscopy of HD at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mrow><mml:mn>1.38</mml:mn></mml:mrow><mml:mspac width="0.16em" /><mml:mi>Î¼</mml:mi><mml:mi mathvariant="normal">m</mml:mi></mml:mrow></mml:math>. Physical Review A, 2018, 98, .	2.5	30
33	Spectroscopy of the 689 nm intercombination line of strontium using an extended-cavity InGaP/InGaAIP diode laser. Applied Physics B: Lasers and Optics, 1992, 55, 397-400.	2.2	29
34	Absolute frequency measurement of a water-stabilized diode laser at 1.384ÂÎ¼m by means of a fiber frequency comb. Applied Physics B: Lasers and Optics, 2011, 102, 725-729.	2.2	29
35	The Boltzmann constant from the H₂â€‰¹⁸O vibrationâ€"rotation spectrum: complementary tests and revised uncertainty budget. Metrologia, 2015, 52, S233-S241.	1.2	29
36	A diode-laser-based spectrometer for in-situ measurements of volcanic gases. Applied Physics B: Lasers and Optics, 2004, 78, 235-240.	2.2	28

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37	Optical feedback cavity-enhanced absorption spectroscopy for in situ measurements of the ratio 13C:12C in CO2. Applied Physics B: Lasers and Optics, 2008, 92, 459.	2.2	28
38	Absolute frequency stabilization of an extended-cavity diode laser by means of noise-immune cavity-enhanced optical heterodyne molecular spectroscopy. Optics Letters, 2014, 39, 2198.	3.3	28
39	Absolute frequency stabilization of an extended-cavity diode laser against Doppler-free H_2^17O absorption lines at 1384 Î¼m. Optics Letters, 2009, 34, 3107.	3.3	27
40	Progress towards the determination of thermodynamic temperature with ultra-low uncertainty. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150046.	3.4	27
41	Design and Capabilities of the Temperature Control System for the Italian Experiment Based on Precision Laser Spectroscopy for a New Determination of the Boltzmann Constant. International Journal of Thermophysics, 2010, 31, 1360-1370.	2.1	26
42	Experimental test of the quadratic approximation in the partially correlated speed-dependent hard-collision profile. Physical Review A, 2014, 90, .	2.5	26
43	Doppler-free saturated-absorption spectroscopy of CO_2 at 43 Î¼m by means of a distributed feedback quantum cascade laser. Optics Letters, 2006, 31, 3040.	3.3	25
44	Highly accurate intensity factors of pure CO2 lines near 2 Î¼m. Journal of Chemical Physics, 2017, 146, 244309.	3.0	25
45	Narrow-linewidth quantum cascade laser at 86â€‰â€‰Î¼m. Optics Letters, 2014, 39, 4946.	3.3	24
46	The FAMU experiment: muonic hydrogen high precision spectroscopy studies. European Physical Journal A, 2020, 56, 1.	2.5	23
47	High-sensitivity detection of NO 2 using a 740 nm semiconductor diode laser. Applied Physics B: Lasers and Optics, 1997, 64, 487-491.	2.2	22
48	Frequency metrology in the near-infrared spectrum of H₂¹⁷O and H₂¹⁸O molecules: testing a new inversion method for retrieval of energy levels. New Journal of Physics, 2010, 12, 103006.	2.9	22
49	Absorption-line-shape recovery beyond the detection-bandwidth limit: Application to the precision spectroscopic measurement of the Boltzmann constant. Physical Review A, 2014, 90, .	2.5	22
50	Combined interferometric and absorption-spectroscopic technique for determining molecular line strengths: Applications toCO2. Physical Review A, 2003, 67, .	2.5	21
51	Trace-gas analysis using diode lasers in the near-IR and long-path techniques. Optics and Lasers in Engineering, 2002, 37, 509-520.	3.8	20
52	Oxygen isotope ratio measurements in CO_2 by means of a continuous-wave quantum cascade laser at 43 Î¼m. Optics Letters, 2007, 32, 3047.	3.3	20
53	Direct phase-locking of a 86-Î¼m quantum cascade laser to a mid-IR optical frequency comb: application to precision spectroscopy of N_2O. Optics Letters, 2015, 40, 304.	3.3	20
54	Quantitative diode laser absorption spectroscopy near 2 Î¼m with high precision measurements of CO2 concentration. Review of Scientific Instruments, 2001, 72, 4228-4233.	1.3	19

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55	Optical Determination of Thermodynamic Temperatures from a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> Line-Doublet in the Near Infrared. Physical Review Applied, 2019, 11, .	3.8	19
56	Visible and ultraviolet high resolution spectroscopy of Ti I and Ti II. Optics Communications, 1991, 83, 300-306.	2.1	18
57	Measuring the13C/12C isotope ratio in atmospheric CO2by means of laser absorption spectrometry: a new perspective based on a 2.05-Î¼m diode laser. Isotopes in Environmental and Health Studies, 2006, 42, 47-56.	1.0	18
58	An Intensity-Stabilized Diode-Laser Spectrometer for Sensitive Detection of $hbox{NH}_{3}$. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 309-312.	4.7	18
59	Line-narrowing effects in the near-infrared spectrum of water and precision determination of spectroscopic parameters. Journal of Chemical Physics, 2014, 140, 044310.	3.0	18
60	Doppler-limited precision spectroscopy of HD at 1.4 Î¼m : An improved determination of the R (1) center frequency. Physical Review A, 2021, 103, .	2.5	18
61	High precision determinations of NH3 concentration by means of diode laser spectrometry at 2.005ÂÎ¼m. Applied Physics B: Lasers and Optics, 2006, 85, 257-263.	2.2	17
62	An efficient approximation for a wavelength-modulated 2nd harmonic lineshape from a Voigt absorption profile. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 168-175.	2.3	17
63	The Boltzmann constant from the shape of a molecular spectral line. Journal of Molecular Spectroscopy, 2014, 300, 131-138.	1.2	17
64	Characterization of the frequency stability of an optical frequency standard at 139 Âµm based upon noise-immune cavity-enhanced optical heterodyne molecular spectroscopy. Optics Express, 2015, 23, 1757.	3.4	17
65	Cavity-ring-down Doppler-broadening primary thermometry. Physical Review A, 2018, 97, .	2.5	17
66	Monitoring of O2 and NO2 using tunable diode lasers in the near-infrared region. Sensors and Actuators B: Chemical, 1997, 39, 283-285.	7.8	16
67	Chemical and isotopic analysis using diode laser spectroscopy: applications to volcanic gas monitoring. Optics and Lasers in Engineering, 2002, 37, 131-142.	3.8	16
68	The lineshape problem in Doppler-width thermometry. Molecular Physics, 2011, 109, 2291-2298.	1.7	16
69	Detection of H_2O and CO_2 with distributed feedback diode lasers: measurement of broadening coefficients and assessment of the accuracy levels for volcanic monitoring. Applied Optics, 1997, 36, 9481.	2.1	14
70	Experimental indication of a nuclear volume contribution to the isotope shift of atomic oxygen. Optics Communications, 1990, 78, 158-162.	2.1	13
71	Hyperfine structure and isotope-shift investigations of atomic nitrogen by saturation spectroscopy. Physical Review A, 1994, 50, 1082-1087.	2.5	13
72	Dual-laser absorption spectroscopy of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>at<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mn>1.4</mml:mn><mml:mrow><mml:mi>Î¼</mml:mi><mml:mi mathvariant="normal">m</mml:mi></mml:mrow></mml:math>. Physical Review A, 2016, 93, .	2.5	13

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73	Optical methods for monitoring of volcanoes: techniques and new perspectives. Journal of Volcanology and Geothermal Research, 2001, 109, 235-245.	2.1	12
74	Doppler-width thermodynamic thermometry by means of line-absorbance analysis. Physical Review A, 2011, 84, .	2.5	12
75	Absolute frequency measurements of CHF_3 Doppler-free ro-vibrational transitions at 86â€‰â€‰Î¼m. Optics Letters, 2017, 42, 1911.	3.3	12
76	Comb-assisted spectroscopy of CO2 absorption profiles in the near- and mid-infrared regions. Applied Physics B: Lasers and Optics, 2012, 109, 385-390.	2.2	11
77	Amount-ratio determinations of water isotopologues by dual-laser absorption spectrometry. Physical Review A, 2012, 86, .	2.5	11
78	Dual-laser frequency-stabilized cavity ring-down spectroscopy for water vapor density measurements. Metrologia, 2018, 55, 662-669.	1.2	11
79	Sub-Doppler spectroscopy of H218O at 1.4ÂÎ¼m. Applied Physics B: Lasers and Optics, 2000, 70, 883-888.	2.2	10
80	Investigating the ultimate accuracy of Doppler-broadening thermometry by means of a global fitting procedure. Physical Review A, 2015, 92, .	2.5	10
81	Relativistic formulation of the Voigt profile. Physical Review A, 2015, 91, .	2.5	10
82	Lamb-dip cavity ring-down spectroscopy of acetylene at 1.4 Î¼m. New Journal of Physics, 2021, 23, 123023.	2.9	10
83	Highly-accurate line shape studies in the near-IR spectrum of H218O: Implications for the spectroscopic determination of the Boltzmann constant. Journal of Physics: Conference Series, 2012, 397, 012029.	0.4	9
84	Frequency-comb-assisted precision laser spectroscopy of CHF3 around 8.6 <i>Î¼</i>m. Journal of Chemical Physics, 2015, 143, 234202.	3.0	9
85	Spectroscopic observation of the Faraday effect in the far infrared. Optics Letters, 1997, 22, 1896.	3.3	8
86	Pressure-Broadening Investigation of NO2in the Near Infrared. Journal of Molecular Spectroscopy, 1997, 186, 207-212.	1.2	8
87	Laser Absorption Spectroscopy for Volcano Monitoring. Optics and Photonics News, 2006, 17, 24.	0.5	8
88	Optical feedback laser absorption spectroscopy of N2O at 2 Âµm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 254, 107190.	2.3	8
89	Temperature dependence of self-broadening in molecular-oxygen spectrum. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1996, 18, 557-564.	0.4	7
90	Investigation of theb1Î£g+(v=0)â†X3Î£gâˆ'(v=0) magnetic-dipole transitions inO218. Physical Review A, 1997, 55, 4597-4600.	2.5	7

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91	Frequency-comb-calibrated Doppler broadening thermometry. Physical Review A, 2013, 88, .	2.5	7
92	Magnetic-field effects on molecular transitions in the far-infrared region: prospects for more-sensitive spectrometers. Journal of the Optical Society of America B: Optical Physics, 1999, 16, 301.	2.1	6
93	Narrow H218O lines and new absolute frequency references in the near-IR. Journal of Optics, 2000, 2, 310-313.	1.5	6
94	Absolute molecular density determinations by direct referencing of a quantum cascade laser to an optical frequency comb. Applied Physics B: Lasers and Optics, 2013, 110, 155-162.	2.2	6
95	The European Metrology Programme for Innovation and Research project: Implementing the new kelvin 2 (InK2). Journal of Physics: Conference Series, 2018, 1065, 122002.	0.4	6
96	Versatile mid-infrared frequency-comb referenced sub-Doppler spectrometer. APL Photonics, 2018, 3, .	5.7	6
97	Linearity of a silicon carbide photodiode in the deep-UV spectral region: implications on Doppler broadening thermometry. Metrologia, 2020, 57, 065001.	1.2	6
98	Tunable UV spectrometer for Doppler broadening thermometry of mercury. Optics Letters, 2020, 45, 3693.	3.3	6
99	A new approach to impedance atomic spectroscopy. Applied Physics B, Photophysics and Laser Chemistry, 1990, 51, 87-90.	1.5	5
100	Polarization spectroscopy of atomic oxygen by dye and semiconductor diode lasers. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1991, 13, 1221-1234.	0.4	5
101	Gas concentration measurements with DFB lasers to monitor volcanic activity. , 1998, 3491, 783.		5
102	The IMERAPlus joint research project for determinations of the Boltzmann constant. , 2013, , .		5
103	Hyperfine structure effects in Doppler-broadening thermometry on water vapor at 1.4 Î¼m. Metrologia, 2016, 53, 800-804.	1.2	5
104	Isotope shifts and hyperfine structures investigation of doubly excited levels in SrI. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1992, 23, 145-149.	1.0	4
105	High resolution spectroscopy of iridium in a hollow cathode discharge. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1993, 25, 113-116.	1.0	4
106	Measurement of the muon transfer rate from muonic hydrogen to oxygen in the range 70-336 K. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 403, 127401.	2.1	4
107	Absolute frequency stabilization of a QCL at 8.6â€‰â€‰Âµm by modulation transfer spectroscopy. Optics Letters, 2020, 45, 4948.	3.3	4
108	Remote Measurements of Volcanic Gases With a Diode-Laser-Based Spectrometer. Optics and Photonics News, 2000, 11, 44.	0.5	3

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109	Modulational instability analysis of the cylindrical nonlinear von Neumann equation. Journal of Plasma Physics, 2013, 79, 443-446.	2.1	3
110	A thermostatic chamber for doppler-broadening thermometry of mercury vapors. Measurement: Journal of the International Measurement Confederation, 2021, 173, 108594.	5.0	3
111	Long-pathlength spectroscopy of O 2 using the NICE-OHMS technique. , 1998, 3491, 794.		2
112	<title>Cavity-enhanced molecular spectroscopy: a powerful tool to detect trace gases</title>. , 1999, 3821, 90.		2
113	Optical methods in Earth Sciences. Optics and Lasers in Engineering, 2002, 37, 87-89.	3.8	2
114	Assessing Soil Respiration by Means of Near-Infrared Diode Laser Spectroscopy. Applied Spectroscopy, 2004, 58, 1051-1056.	2.2	2
115	Quiet Cascade: Measuring QCL Intrinsic Linewidth. Optics and Photonics News, 2010, 21, 32.	0.5	2
116	Rovibrational fine structure and transition dipole moment of CF3H by frequency-comb-assisted saturated spectroscopy at 8.6ÂÂµm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 217, 373-379.	2.3	2
117	High-precision measurements of CO 2 concentration in air by means of diode-laser absorption spectroscopy near 2 Î¼m. , 2001, , .		1
118	Method allows for continuous monitoring of volcanic gases. Eos, 2005, 86, 510.	0.1	1
119	Precision mid-infrared frequency combs and spectroscopic applications. Proceedings of SPIE, 2013, , .	0.8	1
120	Doppler-Broadening Gas Thermometry at 1.39 Î¼m: Towards a New Spectroscopic Determination of the Boltzmann Constant. , 2016, , .		1
121	Dispersion and relativistic corrections to the spectral line-shape models. Journal of Physics: Conference Series, 2017, 810, 012062.	0.4	1
122	Evaluation of local heating in Doppler-broadening thermometry based on cavity ring-down spectroscopy. Physical Review A, 2019, 100, .	2.5	1
123	Real-time monitoring of volcanic emissions with a laser-based fiber spectrometer. , 2004, , .		0
124	Absolute frequency spectroscopy at 4.3 µm by direct referencing of a Quantum-Cascade-Laser to an Er: Fiber laser-based frequency-comb. , 2011, , .		0
125	Comb-assisted precision spectroscopy of NH<inf>3</inf> at 9.1 μm. , 2013, , .		0
126	Metrology-grade sub-Doppler spectroscopy of CHF<inf>3</inf> at 8.6 Î¼m. , 2017, , .		0

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127	Absolute frequency metrology of the CHF3 8.6-Âµm ro-vibrational spectrum at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.svg"><mml:msup><mml:mn>10</mml:mn><mml:mrow><mml:mo>â^'</mml:mo><mml:mn>11</mml:mn></mml:mrow> level. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 248, 106963.	2.3	0
128	Direct Referencing of a Quantum-Cascade-Laser at 4.3 Âµm to a Near-Infrared Frequency Comb. , 2011, , .		0
129	Precision spectroscopy of NH3 at 9.1 Î¼m by a comb-referenced quantum cascade laser. , 2013, , .		0