Agata Cygan

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/5542065/publications.pdf

Version: 2024-02-01

79 papers	1,526 citations	218677 26 h-index	315739 38 g-index
79 all docs	79 docs citations	79 times ranked	791 citing authors

#	Article	IF	Citations
1	Spectral analysis of H₂O near 7180 cm^{â€“1} to accurately measure trace moisture in N₂ gas: evaluation of line shape profiles using Akaike Information Criterion. Japanese Journal of Applied Physics, 2022, 61, 012003.	1.5	2
2	Dual-comb cavity ring-down spectroscopy. Scientific Reports, 2022, 12, 2377.	3.3	14
3	Cavity buildup dispersion spectroscopy. Communications Physics, 2021, 4, .	5.3	9
4	Simultaneous observation of speed dependence and Dicke narrowing for self-perturbed P-branch lines of O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si36.svg"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math> B band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 276, 107927.	2.3	7
5	Frequency-based dispersion Lamb-dip spectroscopy in a high finesse optical cavity. Optics Express, 2021, 29, 39449.	3.4	7
6	Line-shape analysis for high J R-branch transitions of the oxygen B band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 242, 106789.	2.3	8
7	Ultrahigh finesse cavity-enhanced spectroscopy for accurate tests of quantum electrodynamics for molecules. Optics Letters, 2020, 45, 1603.	3.3	26
8	Broadband Optical Cavity Mode Measurements at Hz-Level Precision With a Comb-Based VIPA Spectrometer. Scientific Reports, 2019, 9, 8206.	3.3	29
9	Comb-Based Fourier-Transform Spectrometry for Broadband Measurements of Absorption and Dispersion. , 2019, , .		0
10	Parts-per-trillion sensitivity for trace-moisture detection using wavelength-meter-controlled cavity ring-down spectroscopy. AIP Advances, 2019, 9, .	1.3	10
11	High-accuracy and wide dynamic range frequency-based dispersion spectroscopy in an optical cavity. Optics Express, 2019, 27, 21810.	3.4	26
12	Cavity-Enhanced Direct Optical Frequency Comb Spectroscopy with Tooth-Width Limited Resolution. , 2019, , .		0
13	Mirror Characterization and Complex Refractive Index Measurements with Hz-level Resolution Fourier Transform Spectrometry. , 2019, , .		0
14	Response of an optical cavity to phase-controlled incomplete power switching of nearly resonant incident light. Optics Express, 2018, 26, 5644.	3.4	11
15	Speed-dependent effects in Doppler-free saturation spectra. Journal of Molecular Spectroscopy, 2018, 351, 21-28.	1.2	4
16	Accurate deuterium spectroscopy for fundamental studies. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 213, 41-51.	2.3	54
17	Optical Cavity Mode Measurements at Hz-Level Precision With a Comb-Based VIPA Spectrometer. , 2018, , .		0
18	Fourier-Transform Frequency Comb Cavity Mode Spectroscopy at Hz Level for Trace Gas Measurements. , 2018, , .		1

#	Article	IF	Citations
19	Broadband cavity-enhanced molecular absorption and dispersion spectroscopy with a frequency comb-based VIPA spectrometer. , 2018, , .		0
20	Broadband and high resolution measurements of cavity loss and dispersion. Photonics Letters of Poland, 2018, 10, 48.	0.4	4
21	Line positions, pressure broadening and shift coefficients for the second overtone transitions of carbon monoxide in argon. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 191, 46-54.	2.3	16
22	Ultra accurate measurements andab initiocalculations of collisional effects in pure D2.. Journal of Physics: Conference Series, 2017, 810, 012042.	0.4	1
23	Speed-dependent Voigt profile parameters for oxygen B-band measured by cavity ring-down spectrometer referenced to the optical frequency comb. Journal of Physics: Conference Series, 2017, 810, 012030.	0.4	0
24	Experimental constraint on dark matter detection with optical atomic clocks. Nature Astronomy, 2017, 1, .	10.1	84
25	Absolute frequency determination of molecular transition in the Doppler regime at kHz level of accuracy. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 201, 156-160.	2.3	19
26	Measurement of oxygen Bâ€“band line center frequency in reference to strontium atomic optical clock. Journal of Physics: Conference Series, 2017, 810, 012024.	0.4	0
27	Experimental constraint on dark matter-standard model coupling with optical atomic clocks. , 2017, , .		0
28	Multi-spectrum fitting software for advanced spectral line shapes analysis. Journal of Physics: Conference Series, 2017, 810, 012025.	0.4	3
29	Fibre-optic delivery of time and frequency to VLBI station. Astronomy and Astrophysics, 2017, 603, A48.	5.1	32
30	Spectral line-shape study by cavity-enhanced complex refractive index spectroscopy. Journal of Physics: Conference Series, 2017, 810, 012007.	0.4	3
31	Absolute molecular transition frequencies measured by three cavity-enhanced spectroscopy techniques. Journal of Chemical Physics, 2016, 144, 214202.	3.0	37
32	Accuracy budget of the88Sr optical atomic clocks at KL FAMO. Physica Scripta, 2016, 91, 084003.	2.5	10
33	One-dimensional cavity mode-dispersion spectroscopy for validation of CRDS technique. Measurement Science and Technology, 2016, 27, 045501.	2.6	21
34	The optical 88Sr lattice clocks and stabilized fibre links: A frequency reference for the VLBI system over a 15.5-km link and an absolute measurement of the clock transition over a 330-km link. , 2016, , .		0
35	A new approach to spectral line shapes of the weak oxygen transitions for atmospheric applications. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 169, 111-121.	2.3	27
36	Wavelength-meter controlled cavity ring-down spectroscopy: high-sensitivity detection of trace moisture in N 2 at sub-ppb levels. Sensors and Actuators A: Physical, 2016, 241, 152-160.	4.1	20

#	Article	IF	Citations
37	Absolute measurement of the 1S0â€‰â€“â€‰3P0 clock transition in neutral 88Sr over the 330 km-long stabilized fibre optic link. Scientific Reports, 2015, 5, 17495.	3.3	45
38	Note: Reliable, robust measurement system for trace moisture in gas at parts-per-trillion levels using cavity ring-down spectroscopy. Review of Scientific Instruments, 2015, 86, 106110.	1.3	4
39	CRDS investigation of line shapes of the nitrogen-broadened oxygenB-band transition. Journal of Physics: Conference Series, 2015, 635, 092109.	0.4	0
40	Spectral line shapes and frequencies of the molecular oxygen B-band R-branch transitions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 155, 22-31.	2.3	19
41	Speed-dependent effects and Dicke narrowing in nitrogen-broadened oxygen. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 165, 68-75.	2.3	15
42	One-dimensional frequency-based spectroscopy. Optics Express, 2015, 23, 14472.	3.4	42
43	Application of the Hartmannâ€“Tran profile to analysis of H2O spectra. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 164, 221-230.	2.3	39
44	Strontium optical lattice clocks for practical realization of the metre and secondary representation of the second. Measurement Science and Technology, 2015, 26, 075201.	2.6	26
45	Two independent strontium optical lattice clocks for practical realization of the meter and secondary representation of the second. , 2015, , .		0
46	Quadratic speed dependence of collisional broadening and shifting for atmospheric applications. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 151, 43-48.	2.3	32
47	Spectral line shapes of self-broadened P-branch transitions of oxygen B band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 144, 36-48.	2.3	41
48	Observations of Dicke narrowing and speed dependence in air-broadened CO2 lineshapes near 2.06ÂÎ¼m. Journal of Chemical Physics, 2014, 141, 174301.	3.0	40
49	Line-shapes analysis with ultra-high accuracy. Journal of Physics: Conference Series, 2014, 548, 012022.	0.4	0
50	Alternative approaches to cavity enhanced absorption spectroscopy. Journal of Physics: Conference Series, 2014, 548, 012024.	0.4	2
51	Precise cavity enhanced absorption spectroscopy. Journal of Physics: Conference Series, 2014, 548, 012015.	0.4	5
52	Spectral line-shapes of oxygen B-band transitions measured with cavity ring-down spectroscopy. Journal of Physics: Conference Series, 2014, 548, 012028.	0.4	3
53	Spectral line-shapes investigation with Pound-Drever-Hall-locked frequency-stabilized cavity ring-down spectroscopy. European Physical Journal: Special Topics, 2013, 222, 2119-2142.	2.6	29
54	Low pressure line-shape study of self-broadened CO transitions in the (3â†0) band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 130, 191-200.	2.3	32

#	Article	IF	Citations
55	Comb-linked, cavity ring-down spectroscopy for measurements of molecular transition frequencies at the kHz-level. Journal of Chemical Physics, 2013, 138, 094201.	3.0	51
56	Cavity mode-width spectroscopy with widely tunable ultra narrow laser. Optics Express, 2013, 21, 29744.	3.4	58
57	Low-pressure line-shape study in molecular oxygen with absolute frequency reference. Journal of Chemical Physics, 2013, 139, 194312.	3.0	20
58	The Effects of Variations in Buffer Gas Mixing Ratios on Commercial Carbon Dioxide Cavity Ring-Down Spectroscopy Sensors. Journal of Atmospheric and Oceanic Technology, 2013, 30, 2604-2609.	1.3	7
59	Iterative approach to line-shape calculations based on the transport-relaxation equation. Physical Review A, 2013, 88, .	2.5	28
60	Project of photoassociative measurements for determination of the density shift of the¹S<inf>0</inf>−³P<inf>0</inf> clock transition in neutral strontium. , 2013, , .		0
61	Precision spectroscopy of cold strontium atoms, towards optical atomic clock. Bulletin of the Polish Academy of Sciences: Technical Sciences, 2012, 60, 707-710.	0.8	2
62	High-signal-to-noise-ratio laser technique for accurate measurements of spectral line parameters. Physical Review A, 2012, 85, .	2.5	96
63	Demonstration of the extremely high signal-to-noise ratio and advanced O₂B-band line shape analysis in the PDH-locked FS-CRDS experiment. Journal of Physics: Conference Series, 2012, 397, 012046.	0.4	0
64	Transition frequencies of oxygen B-band lines measured with optical frequency comb assisted cavity ring-down spectroscopy. Journal of Physics: Conference Series, 2012, 397, 012045.	0.4	0
65	Towards Polish Optical Clock with Cold Strontium Atoms, present status and performance. , 2012, , .		0
66	Cavity ring-down spectroscopy of the oxygen B-band with absolute frequency reference to the optical frequency comb. Journal of Chemical Physics, 2012, 136, 024201.	3.0	54
67	Frequency-stabilized cavity ring-down spectroscopy. Chemical Physics Letters, 2012, 536, 1-8.	2.6	72
68	Ultra-Narrow Laser for Optical Frequency Reference. Acta Physica Polonica A, 2012, 121, 614-621.	0.5	15
69	Pound-Drever-Hall-locked, frequency-stabilized cavity ring-down spectrometer. Review of Scientific Instruments, 2011, 82, 063107.	1.3	92
70	Line-shape study of self-broadened O<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>transitions measured by Pound-Drever-Hall-locked frequency-stabilized cavity ring-down spectroscopy. Physical Review A, 2011, 84, .	2.5	46
71	Active control of the Poundâ€“Dreverâ€“Hall error signal offset in high-repetition-rate cavity ring-down spectroscopy. Measurement Science and Technology, 2011, 22, 115303.	2.6	37
72	CRDS investigation of line shapes and intensities of the oxygen B-band transitions at low pressures. , 2010, , .		1

#	Article	IF	Citations
73	Frequency-stabilized cavity ring-down spectroscopy with a PDH locked laser. , 2010, , .		0
74	Spectral line shape problem in the spectroscopic determination of the Boltzmann constant. , 2010, , .		0
75	Influence of the line-shape model on the spectroscopic determination of the Boltzmann constant. Physical Review A, 2010, 82, .	2.5	45
76	Line shapes and intensities of self-broadened<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math><mml:m xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>b</mml:mi></mml:mrow></mml:math><mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:m	2.5	38
77	The hyperfine and isotope structure of the Cd intercombination line â€“ revisited. European Physical Journal D, 2009, 51, 295-302.	1.3	5
78	Line Shape Study of the 326.1 nm [sup 113]Cd line perturbed by Ar and Xe. , 2008, , .		0
79	Isotope Structure and Hyperfine Splitting of 326.1 nm [sup 113]Cd line. , 2008, , .		0