Piotr MasÅ‚owski

List of Publications by Year in descending order

101 papers	1,878 citations	236833 25 h-index	254106 43 g-index
102 all docs	102 docs citations	102 times ranked	1357 citing authors

#	Article	IF	Citations
1	Mid-infrared Fourier transform spectroscopy with a broadband frequency comb. Optics Express, 2010, 18, 21861.	1.7	230
2	Quantum-Noise-Limited Optical Frequency Comb Spectroscopy. Physical Review Letters, 2011, 107, 233002.	2.9	145
3	Cavity-enhanced optical frequency comb spectroscopy in the mid-infrared application to trace detection of hydrogen peroxide. Applied Physics B: Lasers and Optics, 2013, 110, 163-175.	1.1	134
4	Surpassing the path-limited resolution of Fourier-transform spectrometry with frequency combs. Physical Review A, 2016, 93, .	1.0	129
5	Pound-Drever-Hall-locked, frequency-stabilized cavity ring-down spectrometer. Review of Scientific Instruments, 2011, 82, 063107.	0.6	92
6	Optical frequency comb spectroscopy. Faraday Discussions, 2011, 150, 23.	1.6	90
7	Optical frequency comb Fourier transform spectroscopy with sub-nominal resolution and precision beyond the Voigt profile. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 204, 63-73.	1.1	79
8	Experimental intensity and lineshape parameters of the oxygen A-band using frequency-stabilized cavity ring-down spectroscopy. Journal of Molecular Spectroscopy, 2008, 248, 1-13.	0.4	57
9	High-accuracy transition frequencies for the O2 A-band. Journal of Molecular Spectroscopy, 2008, 251, 27-37.	0.4	54
10	Accurate deuterium spectroscopy for fundamental studies. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 213, 41-51.	1.1	54
11	Hydrogen-Peroxide-Enhanced Nonthermal Plasma Effluent for Biomedical Applications. IEEE Transactions on Plasma Science, 2012, 40, 1984-1991.	0.6	45
12	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.	1.6	45
13	One-dimensional frequency-based spectroscopy. Optics Express, 2015, 23, 14472.	1.7	42
14	Spectral line shapes of self-broadened P-branch transitions of oxygen B band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 144, 36-48.	1.1	41
15	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:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>b</mml:mi></mml:mrow></mml:math><mml:math	1.0	38
16	Absolute molecular transition frequencies measured by three cavity-enhanced spectroscopy techniques. Journal of Chemical Physics, 2016, 144, 214202.	1.2	37
17	EELT-HIRES the high-resolution spectrograph for the E-ELT. Proceedings of SPIE, 2016, , .	0.8	34
18	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.	1.1	32

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19	Fibre-optic delivery of time and frequency to VLBI station. Astronomy and Astrophysics, 2017, 603, A48.	2.1	32
20	Spectral line-shapes investigation with Pound-Drever-Hall-locked frequency-stabilized cavity ring-down spectroscopy. European Physical Journal: Special Topics, 2013, 222, 2119-2142.	1.2	29
21	Broadband Optical Cavity Mode Measurements at Hz-Level Precision With a Comb-Based VIPA Spectrometer. Scientific Reports, 2019, 9, 8206.	1.6	29
22	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.	1.1	27
23	Strontium optical lattice clocks for practical realization of the metre and secondary representation of the second. Measurement Science and Technology, 2015, 26, 075201.	1.4	26
24	High-accuracy and wide dynamic range frequency-based dispersion spectroscopy in an optical cavity. Optics Express, 2019, 27, 21810.	1.7	26
25	Ultrahigh finesse cavity-enhanced spectroscopy for accurate tests of quantum electrodynamics for molecules. Optics Letters, 2020, 45, 1603.	1.7	26
26	Absolute frequency measurement of rubidium 5Sâ€“7S two-photon transitions. Optics Letters, 2013, 38, 4581.	1.7	21
27	Low-pressure line-shape study in molecular oxygen with absolute frequency reference. Journal of Chemical Physics, 2013, 139, 194312.	1.2	20
28	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.	1.1	19
29	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.	1.1	19
30	Self-referenced, accurate and sensitive optical frequency comb spectroscopy with a virtually imaged phased array spectrometer. Optics Letters, 2016, 41, 974.	1.7	18
31	Absolute frequency and isotope shift measurements of mercury ¹S₀â€“³P₁ transition. Optics Express, 2019, 27, 11069.	1.7	17
32	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.	1.1	16
33	Speed-dependent effects and Dicke narrowing in nitrogen-broadened oxygen. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 165, 68-75.	1.1	15
34	Fully quantum calculations of the line-shape parameters for the Hartmann-Tran profile: A CO-Ar case study. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 243, 106803.	1.1	14
35	Dual-comb cavity ring-down spectroscopy. Scientific Reports, 2022, 12, 2377.	1.6	14
36	Intensity noise optimization of a mid-infrared frequency comb difference-frequency generation source. Optics Letters, 2020, 45, 1914.	1.7	13

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37	Conjugating precision and acquisition time in a Doppler broadening regime by interleaved frequency-agile rapid-scanning cavity ring-down spectroscopy. Journal of Chemical Physics, 2017, 147, 134201.	1.2	11
38	Response of an optical cavity to phase-controlled incomplete power switching of nearly resonant incident light. Optics Express, 2018, 26, 5644.	1.7	11
39	Accuracy budget of the88Sr optical atomic clocks at KL FAMO. Physica Scripta, 2016, 91, 084003.	1.2	10
40	Subpercent agreement between ab initio and experimental collision-induced line shapes of carbon monoxide perturbed by argon. Physical Review A, 2020, 102, .	1.0	9
41	Line-shape analysis for high J R-branch transitions of the oxygen B band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 242, 106789.	1.1	8
42	Frequency-based dispersion Lamb-dip spectroscopy in a high finesse optical cavity. Optics Express, 2021, 29, 39449.	1.7	7
43	The hyperfine and isotope structure of the Cd intercombination line â€“ revisited. European Physical Journal D, 2009, 51, 295-302.	0.6	5
44	Precise cavity enhanced absorption spectroscopy. Journal of Physics: Conference Series, 2014, 548, 012015.	0.3	5
45	Frequency combs for cavity cascades: OPO combs and graphene-coupled cavities. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 014003.	0.6	5
46	Optical frequency comb-based cavity-enhanced Fourier-transform spectroscopy: Application to collisional line-shape study. Chinese Journal of Chemical Physics, 2020, 33, 23-30.	0.6	5
47	Observation of the Line-Mixing and Collision-Time Asymmetry of the 5¹S₀-5³P₁Line of the Even-Odd¹¹³Cd Isotope. Acta Physica Polonica A, 2004, 105, 329-338.	0.2	5
48	Speed-dependent effects in Doppler-free saturation spectra. Journal of Molecular Spectroscopy, 2018, 351, 21-28.	0.4	4
49	Broadband and high resolution measurements of cavity loss and dispersion. Photonics Letters of Poland, 2018, 10, 48.	0.2	4
50	Spectral line-shapes of oxygen B-band transitions measured with cavity ring-down spectroscopy. Journal of Physics: Conference Series, 2014, 548, 012028.	0.3	3
51	Spectral line-shape study by cavity-enhanced complex refractive index spectroscopy. Journal of Physics: Conference Series, 2017, 810, 012007.	0.3	3
52	Comparison of astrophysical laser frequency combs with respect to the requirements of HIRES. Proceedings of SPIE, 2017, , .	0.8	3
53	Line shape measurements of rubidium 5S-7S two-photon transition. Journal of Physics: Conference Series, 2014, 548, 012023.	0.3	2
54	Alternative approaches to cavity enhanced absorption spectroscopy. Journal of Physics: Conference Series, 2014, 548, 012024.	0.3	2

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55	Broadband midinfrared frequency comb with tooth scanning. , 2015, , .		2
56	VIPA spectrometer calibration and comb-cavity locking schemes comparison for sensitive and accurate frequency comb spectroscopy. Journal of Physics: Conference Series, 2017, 810, 012035.	0.3	2
57	Broadband Midinfrared Comb-Resolved Fourier Transform Spectroscopy. , 2014, , .		2
58	Broadband CO2 measurements with VIPA spectrometer in the near-infrared. Photonics Letters of Poland, 2015, 7, .	0.2	2
59	Asymmetry of hyperfine-structure components of the 5 1S0-53P1 113Cd line perturbed by argon. European Physical Journal: Special Topics, 2007, 144, 239-242.	1.2	1
60	CRDS investigation of line shapes and intensities of the oxygen B-band transitions at low pressures. , 2010, , .		1
61	Ultra accurate measurements andab initiocalculations of collisional effects in pure D2.. Journal of Physics: Conference Series, 2017, 810, 012042.	0.3	1
62	Spectroscopic Investigations of Plasma Nitrocarburizing Processes with a Mid-infrared Frequency Comb. , 2018, , .		1
63	Fourier-Transform Frequency Comb Cavity Mode Spectroscopy at Hz Level for Trace Gas Measurements. , 2018, , .		1
64	VIPA Spectrometer for Accurate and Sensitive Self-Referenced Frequency Comb Spectroscopy. , 2016, , .		1
65	Direct Mid-Infrared Frequency Comb Spectroscopy of Nitrocarburizing Plasma Processes. , 2018, , .		1
66	ELT -HIRES the High Resolution Spectrograph for the ELT: Fabry-PÃ©rots for use as calibration sources. , 2018, , .		1
67	Data analysis methods for laser frequency comb line position measurements with a Fourier transform spectrograph. , 2018, , .		1
68	Line-mixing and collision duration asymmetry of the 51S 0 -53P 1 line of even-odd and even-even isotopes of cadmium. , 2005, , .		0
69	Pressure broadening of hyperfine-structure components of the 5 1S0â€“ 5 3P1 113Cd line perturbed by argon. European Physical Journal: Special Topics, 2007, 144, 243-245.	1.2	0
70	Line Shape Study of the 326.1 nm [sup 113]Cd line perturbed by Ar and Xe. , 2008, , .		0
71	Isotope Structure and Hyperfine Splitting of 326.1 nm [sup 113]Cd line. , 2008, , .		0
72	Frequency-stabilized cavity ring-down spectroscopy with a PDH locked laser. , 2010, , .		0

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73	Broadband Direct Frequency Comb Spectroscopy in the Mid-Infrared. , 2011, , .		0
74	Mid-infrared frequency comb spectrometer based on an optical parametric oscillator. , 2011, , .		0
75	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.	0.3	0
76	Testing optical clock calibration procedures: Absolute frequency measurement of rubidium 5S-7S two-photon transitions. , 2013, , .		0
77	CRDS investigation of line shapes of the nitrogen-broadened oxygenB-band transition. Journal of Physics: Conference Series, 2015, 635, 092109.	0.3	0
78	Broadband, Comb-resolved, High-Finesse Enhancement Cavity Spectrometer with Graphene Modulator. , 2015, , .		0
79	Two independent strontium optical lattice clocks for practical realization of the meter and secondary representation of the second. , 2015, , .		0
80	Fourier Transform Optical Frequency Comb Spectroscopy with Resolution Beyond the Optical-path-difference Limit. , 2016, , .		0
81	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
82	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.	0.3	0
83	Measurement of oxygen Bâ€“band line center frequency in reference to strontium atomic optical clock. Journal of Physics: Conference Series, 2017, 810, 012024.	0.3	0
84	Phase A: calibration concepts for HIRES. Proceedings of SPIE, 2017, , .	0.8	0
85	Optical Frequency Comb Spectroscopy for Gas Metrology and Trace Gas Detection. , 2017, , .		0
86	Optical Cavity Mode Measurements at Hz-Level Precision With a Comb-Based VIPA Spectrometer. , 2018, , .		0
87	Stimulated Raman Spectroscopy of H2 with Absolute Frequency Calibration. , 2019, , .		0
88	Comb-Based Fourier-Transform Spectrometry for Broadband Measurements of Absorption and Dispersion. , 2019, , .		0
89	Precise Comb-Based Fourier Transform Spectroscopy for Line Parameter Retrieval. , 2019, , .		0
90	Comb-calibrated Stimulated-Raman Spectroscopy of H2. , 2021, , .		0

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91	Near-Infrared Fourier Transform Cavity-Enhanced Optical Frequency Comb Spectroscopy. , 2016, , .		0
92	Optical Frequency Comb Fourier Transform Spectroscopy with Resolution beyond the Path Difference Limit. , 2016, , .		0
93	Widely Tunable Mid-IR, High Signal-to-Noise Frequency Comb based Fourier Transform Spectrometer. , 2017, , .		0
94	Line Shape Measurements of CO Using Frequency Comb Based Cavity-Enhanced Absorption Spectroscopy. , 2018, , .		0
95	Precision beyond the Voigt profile using optical frequency comb Fourier transform spectroscopy. , 2018, , .		0
96	Broadband cavity-enhanced molecular absorption and dispersion spectroscopy with a frequency comb-based VIPA spectrometer. , 2018, , .		0
97	Application of Cavity-Enhanced Comb-Based Fourier-Transform Spectroscopy to Line Shape Study of Carbon Monoxide in Argon. , 2018, , .		0
98	CO2 Line Parameter Retrieval Beyond the Voigt Profile Using Comb-Based Fourier Transform Spectroscopy. , 2018, , .		0
99	CO2 LINE PARAMETER RETRIEVAL BEYOND THE VOIGT PROFILE USING COMB-BASED FOURIER TRANSFORM SPECTROSCOPY. , 2018, , .		0
100	Cavity-Enhanced Direct Optical Frequency Comb Spectroscopy with Tooth-Width Limited Resolution. , 2019, , .		0
101	Mirror Characterization and Complex Refractive Index Measurements with Hz-level Resolution Fourier Transform Spectrometry. , 2019, , .		0