

Ryszard Stanislaw Trawinski

List of Publications by Year in descending order

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90
papers

1,021
citations

430754

18
h-index

454834

30
g-index

90
all docs

90
docs citations

90
times ranked

451
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | High-signal-to-noise-ratio laser technique for accurate measurements of spectral line parameters. Physical Review A, 2012, 85, . | 1.0 | 96 |
| 2 | Pound-Drever-Hall-locked, frequency-stabilized cavity ring-down spectrometer. Review of Scientific Instruments, 2011, 82, 063107. | 0.6 | 92 |
| 3 | 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. | 1.2 | 54 |
| 4 | Line-shape study of self-broadened O transitions measured by Pound-Drever-Hall-locked frequency-stabilized cavity ring-down spectroscopy. Physical Review A, 2011, 84, . | 1.0 | 46 |
| 5 | Influence of the line-shape model on the spectroscopic determination of the Boltzmann constant. Physical Review A, 2010, 82, . | 1.0 | 45 |
| 6 | 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 |
| 7 | Line shapes and intensities of self-broadened P-branch transitions of oxygen B band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 144, 36-48. | 1.0 | 38 |
| 8 | Active control of the Pound-Drever-Hall error signal offset in high-repetition-rate cavity ring-down spectroscopy. Measurement Science and Technology, 2011, 22, 115303. | 1.4 | 37 |
| 9 | Low pressure line-shape study of self-broadened CO transitions in the (3+0) band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 130, 191-200. | 1.1 | 32 |
| 10 | 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 |
| 11 | Broadband Optical Cavity Mode Measurements at Hz-Level Precision With a Comb-Based VIPA Spectrometer. Scientific Reports, 2019, 9, 8206. | 1.6 | 29 |
| 12 | 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 |
| 13 | Laser-induced fluorescence study of collision-time asymmetry and speed-dependent effects on the 114Cd326.1-nm line perturbed by Xe. Physical Review A, 2000, 62, . | 1.0 | 26 |
| 14 | 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 |
| 15 | High-accuracy and wide dynamic range frequency-based dispersion spectroscopy in an optical cavity. Optics Express, 2019, 27, 21810. | 1.7 | 26 |
| 16 | Low-pressure line-shape study in molecular oxygen with absolute frequency reference. Journal of Chemical Physics, 2013, 139, 194312. | 1.2 | 20 |
| 17 | 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 |
| 18 | Non-adiabatic approach to the asymmetry of pressure broadened spectral lines. Journal of Quantitative Spectroscopy and Radiative Transfer, 1997, 57, 551-557. | 1.1 | 18 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Self-referenced, accurate and sensitive optical frequency comb spectroscopy with a virtually imaged phased array spectrometer. <i>Optics Letters</i> , 2016, 41, 974. | 1.7 | 18 |
| 20 | Effect of dissociative recombination on spectral line profiles in neon glow discharge. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1994, 27, 4181-4193. | 0.6 | 17 |
| 21 | Interpretation of low-pressure broadening and shift in the argon spectrum. <i>Physica Scripta</i> , 1993, 47, 186-191. | 1.2 | 16 |
| 22 | Line positions, pressure broadening and shift coefficients for the second overtone transitions of carbon monoxide in argon. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017, 191, 46-54. | 1.1 | 16 |
| 23 | Ultra-Narrow Laser for Optical Frequency Reference. <i>Acta Physica Polonica A</i> , 2012, 121, 614-621. | 0.2 | 15 |
| 24 | Power-law temperature dependence of collision broadening and shift of atomic and molecular rovibronic lines. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2013, 120, 90-103. | 1.1 | 14 |
| 25 | On the role of Dicke narrowing in the formation of atomic line shapes in the optical domain. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2003, 36, 3985-3998. | 0.6 | 13 |
| 26 | Collision-Time Asymmetry and Speed-Dependent Effects on the ^{114}Cd 326.1 nm Line Perturbed by Kr. <i>Acta Physica Polonica A</i> , 2001, 99, 243-256. | 0.2 | 12 |
| 27 | Pressure effects on $2p53p-2p55d$ and $2p53p-2p56d$ transitions in neon. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1991, 24, 4909-4918. | 0.6 | 11 |
| 28 | Low pressure broadening and shift of the cadmium intercombination line 326.1 nm ($51S0-53P1$) perturbed by He and Ne. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1994, 27, 5863-5870. | 0.6 | 11 |
| 29 | Speed-dependent collisional effects on the 326.1-nm Cd line perturbed by Xe. <i>Physical Review A</i> , 1997, 56, 4501-4507. | 1.0 | 10 |
| 30 | Collision-time asymmetry of the ^{114}Cd 326.1 nm line perturbed by Ar. <i>European Physical Journal D</i> , 2001, 14, 27-31. | 0.6 | 10 |
| 31 | Laser-induced fluorescence study of the influence of N_2 and CH_4 on the ^{114}Cd . <i>European Physical Journal D</i> , 2003, 23, 217-222. | 0.6 | 9 |
| 32 | Pressure broadening and shift of the 326.1 nm Cd line perturbed by argon. <i>Physica Scripta</i> , 1996, 53, 541-544. | 1.2 | 8 |
| 33 | Line-shape analysis for high J R-branch transitions of the oxygen B band. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020, 242, 106789. | 1.1 | 8 |
| 34 | Pressure Broadening and Shift of the 326.1 nm Cd Line Perturbed by H_2 and D_2 . <i>Acta Physica Polonica A</i> , 2000, 97, 1003-1010. | 0.2 | 8 |
| 35 | Low-pressure broadening and shift of $3p54s-3p5np$ ($n=4, 5, 6$) argon spectral lines perturbed by He, Ne, Ar. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1990, 23, 2003-2012. | 0.6 | 7 |
| 36 | Effects of Low-Polarizability Perturbors on the Cadmium Intercombination Line. <i>Acta Physica Polonica A</i> , 2003, 103, 23-40. | 0.2 | 7 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Pressure effects on 2p5 3p - 2p5 3d transitions in neon. Annalen Der Physik, 1993, 505, 1-8. | 0.9 | 6 |
| 38 | Buffer-gas-induced collision shift for the $\frac{S_{0,1}}{S_{0,2}} \frac{P_{3,1}}{P_{3,2}}$ | 1.0 | 6 |
| 39 | Speed-Dependent Effects on the 748.8 nm Ne Self-Broadened Line. Acta Physica Polonica A, 1999, 96, 359-372. | 0.2 | 6 |
| 40 | Quasistatic interpretation of the He- and Ne-induced blue asymmetry of the 326.1 nm Cd line shapes in the core and near-wing regions. Physical Review A, 2006, 74, . | 1.0 | 5 |
| 41 | The hyperfine and isotope structure of the Cd intercombination line λ_{650} revisited. European Physical Journal D, 2009, 51, 295-302. | 0.6 | 5 |
| 42 | Precise cavity enhanced absorption spectroscopy. Journal of Physics: Conference Series, 2014, 548, 012015. | 0.3 | 5 |
| 43 | 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 |
| 44 | Observation of the Line-Mixing and Collision-Time Asymmetry of the $\frac{S_{1,1}}{S_{1,2}} \frac{P_{3,1}}{P_{3,2}}$ Line of the Even-Odd λ_{113} Cd Isotope. Acta Physica Polonica A, 2004, 105, 329-338. | 0.2 | 5 |
| 45 | Differential Equation for Asymmetric Voigt Profile. Acta Physica Polonica A, 1993, 83, 425-430. | 0.2 | 5 |
| 46 | Analysis of Broadening and Shift of the 326.1 nm Cd Line by He and Ne. Acta Physica Polonica A, 1996, 90, 1155-1167. | 0.2 | 5 |
| 47 | Influence of Excitation Processes on the Shape of Argon and Neon Lines. Acta Physica Polonica A, 2000, 97, 275-284. | 0.2 | 5 |
| 48 | Investigation of highly excited states of calcium by three-photon ionization. European Physical Journal D, 2004, 30, 15-22. | 0.6 | 4 |
| 49 | Asymmetry and speed-dependent effects on the 748.8 nm self-broadened neon line. European Physical Journal D, 2010, 56, 17-25. | 0.6 | 4 |
| 50 | Broadening and Shift of Optical Lines of Argon Involving Quasi-Rydberg States. Acta Physica Polonica A, 1994, 86, 333-341. | 0.2 | 4 |
| 51 | Broadband and high resolution measurements of cavity loss and dispersion. Photonics Letters of Poland, 2018, 10, 48. | 0.2 | 4 |
| 52 | Pressure effects on the 506 nm argon line. Physica Scripta, 1991, 44, 141-144. | 1.2 | 3 |
| 53 | Temperature effects on the width, shift and asymmetry of 748.8 nm self-broadened neon line. European Physical Journal D, 2011, 61, 1-6. | 0.6 | 3 |
| 54 | 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 |

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|----|--|-----|-----------|
| 55 | On Argon-Induced Pressure Shifts of ^{198}Hg Spectral Lines Associated with Quasi-Rydberg Transitions. Acta Physica Polonica A, 2006, 110, 51-56. | 0.2 | 3 |
| 56 | Some Remarks on Pressure Effects on $2p^{5}3p-2p^{5}ns$ ($n=5, 6, 7$) Transitions in Neon. Acta Physica Polonica A, 1992, 81, 369-378. | 0.2 | 3 |
| 57 | Influence of the lower state perturbation on the broadening and shift of optical lines of neon involving quasi-Rydberg states. Journal of Physics B: Atomic, Molecular and Optical Physics, 1993, 26, 4789-4800. | 0.6 | 2 |
| 58 | COLLISION-TIME ASYMMETRY OF THE ^{114}Cd 326.1nm LINE PERTURBED BY KRYPTON. Journal of Quantitative Spectroscopy and Radiative Transfer, 1999, 61, 735-742. | 1.1 | 2 |
| 59 | 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 |
| 60 | Alternative approaches to cavity enhanced absorption spectroscopy. Journal of Physics: Conference Series, 2014, 548, 012024. | 0.3 | 2 |
| 61 | 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 |
| 62 | Non-Adiabatic Semiclassical Calculations of the Collision-Time Asymmetry of the ^{114}Cd 326.1 nm Line Perturbed by Noble Gases. Acta Physica Polonica A, 2004, 105, 217-232. | 0.2 | 2 |
| 63 | Broadband CO_2 measurements with VIPA spectrometer in the near-infrared. Photonics Letters of Poland, 2015, 7, . | 0.2 | 2 |
| 64 | Spectral line tilt effect in the Ebert spectrograph. Applied Optics, 1987, 26, 2912. | 2.1 | 1 |
| 65 | Method of accurately measuring the spectral line tilt in the Ebert spectrograph. Applied Optics, 1993, 32, 4828. | 2.1 | 1 |
| 66 | Asymmetry of hyperfine-structure components of the $5\text{S}_{0-5}\text{P}_{1}$ ^{113}Cd line perturbed by argon. European Physical Journal: Special Topics, 2007, 144, 239-242. | 1.2 | 1 |
| 67 | Broadening and shifting of ^{88}Sr intercombination clock transitions induced by collisions with rare gases. , 2010, , . | | 1 |
| 68 | CRDS investigation of line shapes and intensities of the oxygen B-band transitions at low pressures. , 2010, , . | | 1 |
| 69 | Fourier-Transform Frequency Comb Cavity Mode Spectroscopy at Hz Level for Trace Gas Measurements. , 2018, , . | | 1 |
| 70 | VIPA Spectrometer for Accurate and Sensitive Self-Referenced Frequency Comb Spectroscopy. , 2016, , . | | 1 |
| 71 | Asymmetric line broadening. , 2003, , . | | 0 |
| 72 | Line-mixing and collision duration asymmetry of the $5\text{S}_{0-5}\text{P}_{1}$ line of even-odd and even-even isotopes of cadmium. , 2005, , . | | 0 |

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|----|--|-----|-----------|
| 73 | Isotope Effects Associated With Optical Collisions In The Cd-Ar System. AIP Conference Proceedings, 2006, , . | 0.3 | 0 |
| 74 | Pressure broadening of hyperfine-structure components of the $5\ 1S0\ \leftarrow\ 5\ 3P1\ 113\text{Cd}$ line perturbed by argon. European Physical Journal: Special Topics, 2007, 144, 243-245. | 1.2 | 0 |
| 75 | Temperature dependence of the width and shift of the selfbroadened 748.8 nm neon line. European Physical Journal: Special Topics, 2007, 144, 247-249. | 1.2 | 0 |
| 76 | Influence of Temperature on Line Shape Parameters of the Self-broadened 748.8 nm Ne Line. , 2008, , . | | 0 |
| 77 | Back ground gas induced collision shift for 88Sr: $1S0\text{-}3P1$ transition. , 2009, , . | | 0 |
| 78 | Frequency-stabilized cavity ring-down spectroscopy with a PDH locked laser. , 2010, , . | | 0 |
| 79 | Spectral line shape problem in the spectroscopic determination of the Boltzmann constant. , 2010, , . | | 0 |
| 80 | Demonstration of the extremely high signal-to-noise ratio and advanced O_{2} -band line shape analysis in the PDH-locked FS-CRDS experiment. Journal of Physics: Conference Series, 2012, 397, 012046. | 0.3 | 0 |
| 81 | 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 |
| 82 | Towards Polish Optical Clock with Cold Strontium Atoms, present status and performance. , 2012, , . | | 0 |
| 83 | 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 |
| 84 | Optical Cavity Mode Measurements at Hz-Level Precision With a Comb-Based VIPA Spectrometer. , 2018, , . | | 0 |
| 85 | Comb-Based Fourier-Transform Spectrometry for Broadband Measurements of Absorption and Dispersion. , 2019, , . | | 0 |
| 86 | Temperature Effects on Dissociative Recombination in Neon. Acta Physica Polonica A, 2011, 119, 336-341. | 0.2 | 0 |
| 87 | Line Shape Measurements of CO Using Frequency Comb Based Cavity-Enhanced Absorption Spectroscopy. , 2018, , . | | 0 |
| 88 | Application of Cavity-Enhanced Comb-Based Fourier-Transform Spectroscopy to Line Shape Study of Carbon Monoxide in Argon. , 2018, , . | | 0 |
| 89 | Cavity-Enhanced Direct Optical Frequency Comb Spectroscopy with Tooth-Width Limited Resolution. , 2019, , . | | 0 |
| 90 | Mirror Characterization and Complex Refractive Index Measurements with Hz-level Resolution Fourier Transform Spectrometry. , 2019, , . | | 0 |