Christopher L Strand

List of Publications by Year
in descending order

23 papers	640 citations	840776 11 h-index	677142 22 g-index
24 all docs	24 docs citations	24 times ranked	512 citing authors

#	Article	IF	Citations
1	Fitting of calibration-free scanned-wavelength-modulation spectroscopy spectra for determination of gas properties and absorption lineshapes. Applied Optics, 2014, 53, 356.	1.8	189
2	SpectraPlot.com: Integrated spectroscopic modeling of atomic and molecular gases. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 200, 249-257.	2.3	101
3	Supersonic Mass-Flux Measurements via Tunable Diode Laser Absorption and Nonuniform Flow Modeling. AIAA Journal, 2011, 49, 2783-2791.	2.6	56
4	Single-ended mid-infrared laser-absorption sensor for time-resolved measurements of water concentration and temperature within the annulus of a rotating detonation engine. Proceedings of the Combustion Institute, 2019, 37, 1435-1443.	3.9	44
5	Dual-comb spectroscopy for high-temperature reaction kinetics. Measurement Science and Technology, 2020, 31, 055501.	2.6	43
6	Line intensities and temperature-dependent line broadening coefficients of Q-branch transitions in the v2 band of ammonia near 10.4Î¼m. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 175, 90-99.	2.3	33
7	Quantification of Supersonic Impulse Flow Conditions via High-Bandwidth Wavelength Modulation Absorption Spectroscopy. AIAA Journal, 2015, 53, 2978-2987.	2.6	24
8	R-branch line intensities and temperature-dependent line broadening and shift coefficients of the nitric oxide fundamental rovibrational band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 239, 106612.	2.3	21
9	Mid-infrared laser absorption spectroscopy of NO2 at elevated temperatures. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 187, 364-374.	2.3	19
10	Analysis of laser absorption gas sensors employing scanned-wavelength modulation spectroscopy with 1f-phase detection. Applied Physics B: Lasers and Optics, 2020, 126, 1.	2.2	18
11	Hypersonic Scramjet Testing via Diode Laser Absorption in a Reflected Shock Tunnel. Journal of Propulsion and Power, 2014, 30, 1586-1594.	2.2	14
12	Time-resolved, single-ended laser absorption thermometry and H2O, CO2, and CO speciation in a H2/C2H4-fueled rotating detonation engine. Proceedings of the Combustion Institute, 2021, 38, 1719-1727.	3.9	13
13	High-pressure, high-temperature optical cell for mid-infrared spectroscopy. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 231, 69-78.	2.3	11
14	Temperature-dependent absorption cross section measurements for propene, 1-butene, cis-/trans-2-butene, isobutene and 1,3-butadiene in the spectral region 8.4â€“11.7ÂÂµm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 255, 107240.	2.3	10
15	Two-color frequency-multiplexed IMS technique for gas thermometry at elevated pressures. Applied Physics B: Lasers and Optics, 2020, 126, 1.	2.2	9
16	Thermometry and speciation for high-temperature and -pressure methane pyrolysis using shock tubes and dual-comb spectroscopy. Measurement Science and Technology, 2021, 32, 125502.	2.6	8
17	Two-temperature Collisional-radiative Modeling of Partially Ionized O₂â€“Ar Mixtures over 8000â€“10,000 K Behind Reflected Shock Waves. Journal of Physical Chemistry A, 2020, 124, 3687-3697.	2.5	6
18	Line mixing in the nitric oxide R-branch near 5.2Â<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si79.svg"><mml:mrow><mml:mi mathvariant="normal">Î¼</mml:mi></mml:mrow></mml:math>m at high pressures and temperatures: Measurements and empirical modeling using energy gap fitting. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 276, 107935.	2.3	5

#	Article	IF	Citations
19	Single-Ended Sensor for Thermometry and Speciation in Shock Tubes Using Native Surfaces. IEEE Sensors Journal, 2019, 19, 4954-4961.	4.7	4
20	Shock tube measurements of high-temperature argon broadening and shift parameters for the potassium D1 and D2 resonance transitions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 275, 107895.	2.3	4
21	A two-wavelength ethylene-absorption temperature diagnostic. Measurement Science and Technology, 2019, 30, 035206.	2.6	3
22	Collisional broadening and pressure shift of the potassium resonance doublets by nitrogen, helium, and hydrogen at high temperatures. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 283, 108149.	2.3	3
23	TDLAS Measurements of the Underexpanded Exhaust Plume from a Solid Propellant Gas Generator. , 2019, , .		2