# Christopher S Goldenstein

List of Publications by Year
in descending order



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|---|---|---|---|
| 63 papers | 2,342 citations | 279798 23 h-index | 265206 42 g-index |
| 63 all docs | 63 docs citations | 63 times ranked | 1034 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Laser-Absorption-Spectroscopy Measurements of Temperature, Pressure, and CO at 1 MHz in Post-Detonation Fireballs. , 2022, , . | | 1 |
| 2 | Laser Absorption Spectroscopy Measurements of Temperature, Pressure, and NO X2Î1/2at 500 kHz in Shock-Heated Air. , 2022, , . | | 3 |
| 3 | Wavelength-modulation spectroscopy in the mid-infrared for temperature and HCl measurements in aluminum-lithium composite-propellant flames. Combustion and Flame, 2022, 242, 112180. | 5.2 | 6 |
| 4 | High-speed multi-spectral imaging of the hypergolic ignition of ammonia borane. Proceedings of the Combustion Institute, 2021, 38, 4433-4440. | 3.9 | 12 |
| 5 | Characterization of the influence of aluminum particle size on the temperature of composite-propellant flames using CO absorption and AlO emission spectroscopy. Proceedings of the Combustion Institute, 2021, 38, 4365-4372. | 3.9 | 21 |
| 6 | Spectrally Resolved, 1D, Mid-Infrared Imaging of Temperature, CO2, and HCl in AP-HTPB Propellant Flames. , 2021, , . | | 0 |
| 7 | Characterization of Aluminum-Lithium Composite-Propellant Flames via Laser Absorption Spectroscopy. , 2021, , . | | 3 |
| 8 | Single-shot ultrafast-laser-absorption measurements of temperature, CO, NO, and H2O in HMX fireballs. , 2021, , . | | 0 |
| 9 | High-Bandwidth Laser-Absorption Measurements of Temperature, Pressure, CO, and H2O in the Annulus of a Rotating Detonation Rocket Engine. , 2021, , . | | 4 |
| 10 | Spectrally Resolved, 1D, Mid-Infrared Imaging of Temperature, COâ„¢, and HCl in Propellant Flames. Applied Optics, 2021, 60, 4524-4534. | 1.8 | 0 |
| 11 | Broadband, Mid-Infrared Laser-Absorption Measurements of Temperature, CH<sub>4</sub>, and C<sub>3</sub>H<sub>8</sub> in Flames. , 2021, , . | | 2 |
| 12 | Ultrafast-laser-absorption spectroscopy in the mid-infrared for single-shot, calibration-free temperature and species measurements in low- and high-pressure combustion gases. Optics Express, 2021, 29, 30140. | 3.4 | 22 |
| 13 | Ultrafast-laser-absorption-spectroscopy measurements of gas temperature in multi-phase, high-pressure combustion gases. , 2021, , . | | 1 |
| 14 | Infrared Laser-Induced Fluorescence with a Continuous-Wave Optical Parametric Oscillator. , 2021, , . | | 1 |
| 15 | Single-shot, mid-infrared ultrafast-laser-absorption-spectroscopy measurements of temperature, CO, NO and H2O in HMX combustion gases. Applied Physics B: Lasers and Optics, 2021, 127, 1. | 2.2 | 9 |
| 16 | High-bandwidth absorption-spectroscopy measurements of temperature, pressure, CO, and H$$_2$$O in the annulus of a rotating detonation rocket engine. Applied Physics B: Lasers and Optics, 2021, 127, 1. | 2.2 | 24 |
| 17 | Near-GHz scanned-wavelength-modulation spectroscopy for MHz thermometry and H$$_2$$O measurements in aluminized fireballs of energetic materials. Applied Physics B: Lasers and Optics, 2020, 126, 1. | 2.2 | 19 |
| 18 | Wavelength-Modulation-Spectroscopy Diagnostics for Characterizing Metallized and Halogenated Fireballs of Energetic Materials. , 2020, , . | | 2 |

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|---|---|---|---|
| 19 | Ultrafast Laser Absorption Spectroscopy in the Mid-Infrared for Measuring Temperature and Species in Combustion Gases. , 2020, , . | | 5 |
| 20 | Scanned-Wavelength-Modulation Spectroscopy in the Mid-Infrared for Measurements of Temperature and CO in Aluminized Composite Propellant Flames. , 2020, , . | | 2 |
| 21 | Simulation technique enabling calibration-free frequency-modulation spectroscopy measurements of gas conditions and lineshapes with modulation frequencies spanning kHz to GHz. Applied Optics, 2020, 59, 1491. | 1.8 | 6 |
| 22 | Cepstral analysis for baseline-insensitive absorption spectroscopy using light sources with pronounced intensity variations. Applied Optics, 2020, 59, 7865. | 1.8 | 20 |
| 23 | Ultrafast laser-absorption spectroscopy for single-shot, mid-infrared measurements of temperature, CO, and CH<sub>4</sub> in flames. Optics Letters, 2020, 45, 583. | 3.3 | 30 |
| 24 | 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 |
| 25 | Design and application of a high-pressure combustion chamber for studying propellant flames with laser diagnostics. Review of Scientific Instruments, 2019, 90, 045111. | 1.3 | 20 |
| 26 | High-pressure and high-temperature gas cell for absorption spectroscopy studies at wavelengths up to 8ÂÂµm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 227, 145-151. | 2.3 | 25 |
| 27 | Wavelength-Modulation Spectroscopy for MHz Thermometry and H2O Sensing in Combustion Gases of Energetic Materials. , 2019, , . | | 8 |
| 28 | 2D mid-infrared laser-absorption imaging for tomographic reconstruction of temperature and carbon monoxide in laminar flames. Optics Express, 2019, 27, 14184. | 3.4 | 34 |
| 29 | Compact, fiber-coupled, single-ended laser-absorption-spectroscopy sensors for high-temperature environments. Applied Optics, 2018, 57, 7117. | 1.8 | 10 |
| 30 | Tomographic laser absorption imaging of combustion species and temperature in the mid-wave infrared. Optics Express, 2018, 26, 20944. | 3.4 | 56 |
| 31 | Infrared laser-absorption sensing for combustion gases. Progress in Energy and Combustion Science, 2017, 60, 132-176. | 31.2 | 471 |
| 32 | SpectraPlot.com: Integrated spectroscopic modeling of atomic and molecular gases. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 200, 249-257. | 2.3 | 101 |
| 33 | Design and implementation of a laser-based absorption spectroscopy sensor for in situ monitoring of biomass gasification. Measurement Science and Technology, 2017, 28, 125501. | 2.6 | 4 |
| 34 | Wavelength-modulated planar laser-induced fluorescence for imaging gases. Optics Letters, 2017, 42, 5278. | 3.3 | 6 |
| 35 | Single-Ended Infrared-Laser-Absorption Sensing of Gas Properties. , 2017, , . | | 0 |
| 36 | Kinetics of Excited Oxygen Formation in Shock-Heated O<sub>2</sub>â€“Ar Mixtures. Journal of Physical Chemistry A, 2016, 120, 8234-8243. | 2.5 | 16 |

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|---|---|---|---|
| 37 | Fiber-coupled diode-laser sensors for calibration-free stand-off measurements of gas temperature, pressure, and composition. Applied Optics, 2016, 55, 479. | 2.1 | 34 |
| 38 | Diagnostic Techniques for Gaseous Flows. , 2016, , 201-215. | | 1 |
| 39 | Spectroscopy and Optical Diagnostics for Gases. , 2016, , . | | 196 |
| 40 | Single-ended mid-infrared laser-absorption sensor for simultaneous in situ measurements of H_2O, CO_2, CO, and temperature in combustion flows. Applied Optics, 2016, 55, 9347. | 2.1 | 37 |
| 41 | Shock-tube measurements of excited oxygen atoms using cavity-enhanced absorption spectroscopy. Applied Optics, 2015, 54, 8766. | 2.1 | 32 |
| 42 | Infrared planar laser-induced fluorescence with a CW quantum-cascade laser for spatially resolved CO2 and gas properties. Applied Physics B: Lasers and Optics, 2015, 120, 185-199. | 2.2 | 12 |
| 43 | Infrared laser absorption sensors for multiple performance parameters in a detonation combustor. Proceedings of the Combustion Institute, 2015, 35, 3739-3747. | 3.9 | 43 |
| 44 | Constrained reaction volume shock tube study of n -heptane oxidation: Ignition delay times and time-histories of multiple species and temperature. Proceedings of the Combustion Institute, 2015, 35, 231-239. | 3.9 | 60 |
| 45 | Diode-laser measurements of linestrength and temperature-dependent lineshape parameters for H2O transitions near 1.4Î¼m using Voigt, Rautian, Galatry, and speed-dependent Voigt profiles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 152, 127-139. | 2.3 | 67 |
| 46 | Hypersonic Scramjet Testing via Diode Laser Absorption in a Reflected Shock Tunnel. Journal of Propulsion and Power, 2014, 30, 1586-1594. | 2.2 | 14 |
| 47 | Spatially Resolved Water Measurements in a Scramjet Combustor Using Diode Laser Absorption. Journal of Propulsion and Power, 2014, 30, 1551-1558. | 2.2 | 29 |
| 48 | A scanned-wavelength-modulation absorption-spectroscopy sensor for temperature and H<sub>2</sub>O in low-pressure flames. Measurement Science and Technology, 2014, 25, 115501. | 2.6 | 24 |
| 49 | High-bandwidth scanned-wavelength-modulation spectroscopy sensors for temperature and H<sub>2</sub>O in a rotating detonation engine. Measurement Science and Technology, 2014, 25, 105104. | 2.6 | 66 |
| 50 | 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 |
| 51 | Diode Laser Absorption Sensor for Combustion Progress in a Model Scramjet. Journal of Propulsion and Power, 2014, 30, 550-557. | 2.2 | 19 |
| 52 | Spatially-resolved TDLAS measurements of temperature, H2O column density, and velocity in a direct-connect scramjet combustor. , 2014, , . | | 6 |
| 53 | Multispecies Midinfrared Absorption Measurements in a Hydrocarbon-Fueled Scramjet Combustor. Journal of Propulsion and Power, 2014, 30, 1595-1604. | 2.2 | 35 |
| 54 | Wavelength-modulation spectroscopy near 2.5ÂÎ¼m for H2O and temperature in high-pressure and -temperature gases. Applied Physics B: Lasers and Optics, 2014, 116, 705-716. | 2.2 | 40 |

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| 55 | Scanned-wavelength-modulation spectroscopy near 2.5ÂÎ¼m for H2O and temperature in a hydrocarbon-fueled scramjet combustor. Applied Physics B: Lasers and Optics, 2014, 116, 717-727. | 2.2 | 50 |
| 56 | Simultaneous sensing of temperature, CO, and CO2 in a scramjet combustor using quantum cascade laser absorption spectroscopy. Applied Physics B: Lasers and Optics, 2014, 117, 689-698. | 2.2 | 93 |
| 57 | Analysis of calibration-free wavelength-scanned wavelength modulation spectroscopy for practical gas sensing using tunable diode lasers. Measurement Science and Technology, 2013, 24, 125203. | 2.6 | 160 |
| 58 | Diode laser measurements of linestrength and temperature-dependent lineshape parameters of H2O-, CO2-, and N2-perturbed H2O transitions near 2474 and 2482nm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 130, 100-111. | 2.3 | 61 |
| 59 | Two-color absorption spectroscopy strategy for measuring the column density and path average temperature of the absorbing species in nonuniform gases. Applied Optics, 2013, 52, 7950. | 1.8 | 55 |
| 60 | TDL Absorption Sensor for Temperature Measurements in High-Pressure and High-Temperature Gases. , 2012, , . | | 7 |
| 61 | TDL Absorption Sensor for In Situ Determination of Combustion Progress in Scramjet Ground Testing. , 2012, , . | | 3 |
| 62 | Tunable Diode Laser Absorption Sensor for Measurements of Temperature and Water Concentration in Supersonic Flows. , 2011, , . | | 8 |
| 63 | Measurement of Water Vapor Levels for Investigating Vitiation Effects on Scramjet Performance. Journal of Propulsion and Power, 2011, 27, 1315-1317. | 2.2 | 13 |