

## PUBLICATION LIST OF CHRISTOPHER S. GOLDENSTEIN

### TEXTBOOKS

1. R. K. Hanson, R. M. Spearrin, **C. S. Goldenstein**, *Spectroscopy and Optical Diagnostics for Gases*, Springer International Publishing AG Switzerland (2016)

### BOOK CHAPTERS

1. R. M. Spearrin and **C. S. Goldenstein**, Chapter 15 - High-pressure spectroscopy and sensors for combustion, In K. Brezinsky (Ed.): *Combustion Chemistry and the Carbon Neutral Future*, Elsevier (2023), pp. 503-520, [doi.org/10.1016/B978-0-323-99213-8.00005-9](https://doi.org/10.1016/B978-0-323-99213-8.00005-9)

### JOURNAL AND CONFERENCE PUBLICATIONS

101. J. J. Gilvey, K. A. Daniel, C. R. Downing, B. T. Lyon, K. P. Lynch, J. L. Wagner, and **C. S. Goldenstein**, High-speed laser-absorption measurements of non-equilibrium nitric oxide in the Sandia Hypersonic Shock Tunnel, *Applied Physics B*, 130 (2024), [doi.org/10.1007/s00340-024-08330-w](https://doi.org/10.1007/s00340-024-08330-w)
100. J. Stiborek, R. Ramirez, and **C. S. Goldenstein**, Development of a single-ended mid-infrared fiber-coupled laser-absorption sensor for measurements of temperature, CO, and CO<sub>2</sub> in harsh environments, *Applied Optics*, 63 (2024) pp. 7588-7597, [doi.org/10.1364/AO.534027](https://doi.org/10.1364/AO.534027)
99. J. Stiborek, N. J. Kempema, C. J. Schwartz, J. J. Szente, M. J. Loos, **C. S. Goldenstein**, Determination of air-fuel ratio at 1 kHz via mid-infrared laser absorption and fast flame ionization detector measurements in engine-out vehicle exhaust, *SAE International Journal of Engines*, 17(5) [doi.org/10.4271/03-17-05-0039](https://doi.org/10.4271/03-17-05-0039)
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96. E. R. Jans, K. P. Lynch, R. M. Wagnild, W. E. Swain, C. R. Downing, S. P. Kearney, J. L. Wagner, J. J. Gilvey, and **C. S. Goldenstein**, Laser-based characterization of reflected shock tunnel freestream velocity and multi-species thermal nonequilibrium with comparison to modeling, *AIAA SciTech 2024 Forum*, Orlando, FL, AIAA 2024-1753 (2024) [doi.org/10.2514/6.2024-1753](https://doi.org/10.2514/6.2024-1753)
95. D. J. Londrico, J. J. Gilvey, and **C. S. Goldenstein**, Two-color mid-infrared laser absorption spectroscopy measurements of air temperature, pressure, and mass flux behind shock waves via ambient CO<sub>2</sub>, *AIAA SciTech 2024 Forum*, Orlando, FL, AIAA 2024-1100 (2024) [doi.org/10.2514/6.2024-1100](https://doi.org/10.2514/6.2024-1100)
94. C. J. Schwartz, R. L. Travis, S. F. Son, D. R. Guildenbecher, and **C. S. Goldenstein**, Simultaneous laser absorption spectroscopy measurements of temperature, CO, and CO<sub>2</sub> at near-MHz repetition rates in post-detonation fireballs of PETN, *AIAA SciTech 2024 Forum*, Orlando, FL, AIAA 2024-1929 (2024) [doi.org/10.2514/6.2024-1929](https://doi.org/10.2514/6.2024-1929)
93. R. S. Ramirez, V. Radhakrishna, R. J. Tancin, C. Schwartz, M. Ornek, S. F. Son, and **C. S. Goldenstein**, Ultrafast-laser-absorption-spectroscopy diagnostics for aluminum and lithium vapor in composite-propellant flames, *AIAA SciTech 2024 Forum*, Orlando, FL, AIAA 2024-2421 (2024) [doi.org/10.2514/6.2024-2421](https://doi.org/10.2514/6.2024-2421)
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