

## 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

104. J. J. Gilvey, **C. S. Goldenstein**, E. R. Jans, B. T. Lyon, C. R. Downing, K. P. Lynch, and J. L. Wagner, Measurements of NO Rotational and Vibrational Temperatures, Partial Pressure, and Velocity in Hypersonic Shock Tunnel Flows, *AIAA SciTech 2025 Forum*, Orlando, FL, AIAA 2025-0012 (2025) [doi.org/10.2514/6.2025-0012](https://doi.org/10.2514/6.2025-0012)
103. C. J. Schwartz, J. J. Gilvey, **C. S. Goldenstein**, C. R. Downing, B. T. Lyon, J. Hargis, K. P. Lynch, and J. L. Wagner, Chirped-Pulse Laser Absorption Imaging of Ablation Products Formed in Hypersonic Shock-Tunnel Experiments, *AIAA SciTech 2025 Forum*, Orlando, FL, AIAA 2025-0859 (2025) [doi.org/10.2514/6.2025-0859](https://doi.org/10.2514/6.2025-0859)
102. J. Rustad, G. C. Mathews, and **C. S. Goldenstein**, Dual-Band Wavelength-Modulated Infrared Laser-Induced-Fluorescence Thermometry of CO, *AIAA SciTech 2025 Forum*, Orlando, FL, AIAA 2025-0014 (2025) [doi.org/10.2514/6.2025-0014](https://doi.org/10.2514/6.2025-0014)
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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 (2024) pp. 689-703, [doi.org/10.4271/03-17-05-0039](https://doi.org/10.4271/03-17-05-0039)
98. G. C. Mathews, J. Rustad, and **C. S. Goldenstein**, Dual-band scanned-wavelength infrared laser-induced-fluorescence thermometry of CO, *AIAA SciTech 2024 Forum*, Orlando, FL, AIAA 2024-2827 (2024) [doi.org/10.2514/6.2024-2827](https://doi.org/10.2514/6.2024-2827)
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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)
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