

Stanford

Jesse Streicher

Physical Sci Res Scientist

Mechanical Engineering

Bio

ACADEMIC APPOINTMENTS

- Physical Science Research Scientist, Mechanical Engineering

Teaching

COURSES

2021-22

- Mechanical Engineering Teaching Assistance Training: ME 492 (Aut, Win, Spr)

2020-21

- Mechanical Engineering Teaching Assistance Training: ME 492 (Win, Spr)

Publications

PUBLICATIONS

- **Effect of elevated temperatures (550-860 K) on the laminar flame speeds of methane/hydrogen blends** *FUEL*
Figueroa-Labastida, M., Zheng, L., Streicher, J. W., Hanson, R. K.
2024; 372
- **High-temperature laminar flame speed measurements of ammonia/ methane blends behind reflected shock waves** *COMBUSTION AND FLAME*
Figueroa-Labastida, M., Zheng, L., Streicher, J. W., Hanson, R. K.
2024; 261
- **Spectroscopic modeling and measurements of the CN Violet and Red systems for the development of nonequilibrium temperature and speciation diagnostics** *JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER*
Krish, A., Finch, P. M., Merrell, D. P., Streicher, J. W., Hanson, R. K.
2023; 311
- **Laser absorption study of the $N_2 + O \rightarrow NO + N$ and $NO + O \rightarrow O_2 + N$ Zeldovich reactions in shock-heated N_2O mixtures** *PHYSICS OF FLUIDS*
Streicher, J. W., Krish, A., Hanson, R. K.
2023; 35 (4)
- **Shock-Tube Measurements of Atomic Nitrogen Collisional Excitation in 8000-12000 K Partially Ionized Nitrogen-Argon Mixtures.** *The journal of physical chemistry. A*
Finch, P. M., Granowitz, Z. N., Streicher, J. W., Krish, A., Strand, C. L., Hanson, R. K.
2023
- **Application of Reflected Shock Wave Configuration to Validate Nonequilibrium Models of Reacting Air** *JOURNAL OF THERMOPHYSICS AND HEAT TRANSFER*
Gimelshein, S. F., Streicher, J. W., Krish, A., Hanson, R. K., Wysong, I. J.
2022

- **High-temperature vibrational relaxation and decomposition of shock-heated nitric oxide. I. Argon dilution from 2200 to 8700 K** *PHYSICS OF FLUIDS*
Streicher, J. W., Krish, A., Hanson, R. K.
2022; 34 (11)
- **High-temperature vibrational relaxation and decomposition of shock-heated nitric oxide: II. Nitrogen dilution from 1900 to 8200 K** *PHYSICS OF FLUIDS*
Streicher, J. W., Krish, A., Hanson, R. K.
2022; 34 (11)
- **Spectrally-resolved ultraviolet absorption measurements of shock-heated NO from 2000 K to 6000 K for the development of a two-color rotational temperature diagnostic** *JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER*
Krish, A., Streicher, J. W., Hanson, R. K.
2022; 280
- **Spectrally-resolved absorption cross-section measurements of shock-heated O-2 for the development of a vibrational temperature diagnostic** *JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER*
Krish, A., Streicher, J. W., Hanson, R. K.
2021; 270
- **Coupled vibration-dissociation time-histories and rate measurements in shock-heated, nondilute O-2 and O-2-Ar mixtures from 6000 to 14000K** *PHYSICS OF FLUIDS*
Streicher, J. W., Krish, A., Hanson, R. K.
2021; 33 (5)
- **Vibrational relaxation time measurements in shock-heated oxygen and air from 2000 K to 9000 K using ultraviolet laser absorption** *PHYSICS OF FLUIDS*
Streicher, J. W., Krish, A., Hanson, R. K.
2020; 32 (8)
- **Shock-tube measurements of coupled vibration-dissociation time-histories and rate parameters in oxygen and argon mixtures from 5000 K to 10 000 K** *PHYSICS OF FLUIDS*
Streicher, J. W., Krish, A., Hanson, R. K., Hanquist, K. M., Chaudhry, R. S., Boyd, I. D.
2020; 32 (7)
- **Ultraviolet absorption cross-section measurements of shock-heated O-2 from 2,000-8,400 K using a tunable laser** *JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER*
Krish, A., Streicher, J. W., Hanson, R. K.
2020; 247
- **A comparative laser absorption and gas chromatography study of low-temperature n-heptane oxidation intermediates** *PROCEEDINGS OF THE COMBUSTION INSTITUTE*
Ferris, A. M., Susa, A. J., Davidson, D. F., Hanson, R. K.
2019; 37 (1): 249–57