

## Ajay Krish

- Ph.D. Student in Mechanical Engineering, admitted Spring 2019
- Ph.D. Minor, Electrical Engineering

### Publications

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#### PUBLICATIONS

- **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