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ACADEMIC APPOINTMENTS

- Physical Science Research Scientist, Mechanical Engineering

Publications

PUBLICATIONS

- **Effect of pre-flame reaction extent on the dynamics of outwardly expanding dimethyl ether (DME) laminar flames in the NTC region** *COMBUSTION AND FLAME*
  Zheng, L., Figueroa-Labastida, M., Wei, C., Hanson, R. K.
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- **Measurements of high-temperature H2 laminar flame speeds across a wide range of pressure and Ar dilution for improved comparative evaluation of chemical kinetic models** *INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*
  Figueroa-Labastida, M., Zheng, L., Streicher, J. W., Hanson, R. K.
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- **Implementation of novel methods for new insights into the autoignition behavior of hydrogen-air mixtures at lean and ultra-lean conditions** *INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*
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- **Predicting non-ideal effects from the diaphragm opening process in shock tubes** *PHYSICS OF FLUIDS*
  Subburaj, J., Figueroa-Labastida, M., Farooq, A.
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- **Effect of elevated temperatures (550-860 K) on the laminar flame speeds of methane/hydrogen blends** *FUEL*
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- **Experimental measurements of n-heptane flame speeds behind reflected shock waves with variable extents of pre-flame auto-ignition chemistry** *COMBUSTION AND FLAME*
  Zheng, L., Figueroa-Labastida, M., Streicher, J. W., Ferris, A. M., Hanson, R. K.
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- **Ammonia/hydrogen laminar flame speed measurements at elevated temperatures** *INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*
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- **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.

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- **Measurements of methane laminar flame speeds at temperatures up to 1320 K** *COMBUSTION AND FLAME*
  Figueroa-Labastida, M., Zheng, L., Streicher, J. W., Hanson, R. K.
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- **Shock-tube laminar flame speed measurements of ammonia/airgon mixtures at temperatures up to 771K** *COMBUSTION AND FLAME*
  Figueroa-Labastida, M., Zheng, L., Ferris, A. M., Obrecht, N., Callu, C., Hanson, R. K.
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- **Measurements and a new correlation of methanol laminar flame speeds at temperatures up to 916 K and elevated pressures behind reflected shock waves** *PROCEEDINGS OF THE COMBUSTION INSTITUTE*
  Zheng, L., Figueroa-Labastida, M., Streicher, J., Hanson, R. K.
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- **Multi-speciation and ignition delay time measurements of ammonia oxidation behind reflected shock waves** *COMBUSTION AND FLAME*
  Rault, T. M., Clees, S., Figueroa-Labastida, M., Barnes, S. C., Ferris, A. M., Obrecht, N., Callu, C., Hanson, R. K.
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- **Effect of oxygen enrichment on methane ignition** *COMBUSTION AND FLAME*
  Kashif, T., Alabbad, M., Figueroa-Labastida, M., Chatakonda, O., Kloosterman, J., Middaugh, J., Sarathy, S., Farooq, A.
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- **Laminar flame speed measurements of ethanol, iso-octane, and their binary blends at temperatures up to 1020 K behind reflected shock waves** *FUEL*
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- **Dual-camera high-speed imaging of the ignition modes of ethanol, methanol and n-hexane in a shock tube** *COMBUSTION AND FLAME*
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