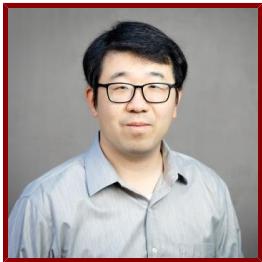


Stanford



Rui Xu

Postdoctoral Scholar, Chemistry

Bio

HONORS AND AWARDS

- Wiley Computers in Chemistry Outstanding Postdoc Award, American Chemical Society (ACS) (2024)
- AFOSR Scholar Award, American Conference on Theoretical Chemistry (ACTC) (2022)

PROFESSIONAL EDUCATION

- Ph.D., Stanford University , Mechanical Engineering (2019)
- M.S., Northwestern University , Mechanical Engineering (2014)
- B.S., Shanghai Jiao Tong University , Mechanical Engineering (2012)

STANFORD ADVISORS

- Todd Martinez, Postdoctoral Faculty Sponsor

LINKS

- Google Scholar: <https://scholar.google.com/citations?user=FtEGbaIAAAJ&hl=en>
- Personal Webpage: <https://ruixucomp.github.io/>

Research & Scholarship

LAB AFFILIATIONS

- Todd Martinez, The Martinez Group (10/1/2020)
- Hai Wang, NanoEnergy Lab (9/12/2014 - - 9/30/2020)

Publications

PUBLICATIONS

- **Foundational Fuel Chemistry Model 2-iso-Butene chemistry and application in modeling alcohol-to-jet fuel combustion** *COMBUSTION AND FLAME*
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- **Efficient Acceleration of Reaction Discovery in the Ab Initio Nanoreactor: Phenyl Radical Oxidation Chemistry.** *The journal of physical chemistry. A*
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- **A physics-based approach to modeling real-fuel combustion chemistry - VI. Predictive kinetic models of gasoline fuels** *COMBUSTION AND FLAME*
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- **Principle of large component number in multicomponent fuel combustion - a Monte Carlo study** *PROCEEDINGS OF THE COMBUSTION INSTITUTE*
Xu, R., Wang, H.
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- **A high pressure shock tube study of pyrolysis of real jet fuel Jet A** *PROCEEDINGS OF THE COMBUSTION INSTITUTE*
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- **A Physics-based approach to modeling real-fuel combustion chemistry - III. Reaction kinetic model of JP10** *COMBUSTION AND FLAME*
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- **A physics based approach to modeling real-fuel combustion chemistry - IV. HyChem modeling of combustion kinetics of a bio-derived jet fuel and its blends with a conventional Jet A** *COMBUSTION AND FLAME*
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- **A physics-based approach to modeling real-fuel combustion chemistry - II. Reaction kinetic models of jet and rocket fuels** *COMBUSTION AND FLAME*
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● **Fuel effects on lean blow-out in a realistic gas turbine combustor** *COMBUSTION AND FLAME*

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● **HEEDS OPTIMIZED HYCHEM MECHANISMS**

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● **A Mixed Double-Sided Incremental Forming Toolpath Strategy for Improved Geometric Accuracy** *JOURNAL OF MANUFACTURING SCIENCE AND ENGINEERING-TRANSACTIONS OF THE ASME*

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