

Dapeng Liu

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RESEARCH EXPERIENCE

King Abdullah University of Science and Technology(KAUST)

Postdoctoral Researcher, FASFTER Lab

Jeddah, Saudi Arabia

Jan 2024 - now

The Chinese University of HongKong(CUHK)

Postdoctoral Research Associate, Advanced Laser Diagnostic Lab

Hongkong, China

Sep 2022 - Aug 2023

EDUCATION

Clean Combustion Research Center, KAUST

Master and Ph.D. degree

Awards **Bernard Lewis Fellowship**

Jeddah, Saudi Arabia

Aug 2015 - Dec 2021

Xi'an Jiaotong University (XJTU)

*Bachelor degree(**top 15%**)*

Awards outstanding student

Xi'An, China

Sep 2010 - Jul 2014

PUBLICATION

1. Investigation of Cyclopentene + OH and Cyclopentene Thermal Decomposition Reactions

Dapeng Liu, Fathi Khaled, Wei Ren, Aamir Farooq

Combustion and Flame, 2024

[click me]

2. Heptanone isomers as a biofuel: Reactivity with OH radicals

Dapeng Liu, Fathi Khaled, Aamir Farooq

Proceedings of the Combustion Institute, Accepted

[click me]

3. A theoretical and Experimental Study of 2-Ethylfuran + OH Reaction

Li Fu, Dapeng Liu, ... ,HongBo Ning*, Wei Ren*, Aamir Farooq

Combustion and Flame, 2024

[click me]

4. Allylic-Alkylic C-C Bond Thermal Decomposition in 1-Butene and 1-Pentene

Chengyu Zhou, Dapeng Liu*, Aamir Farooq*

Combustion and Flame, 2024

[click me]

5. Investigation of thermal decomposition of nitrobenzene: An energetic material

Dapeng Liu, Aamir Farooq

Combustion and Flame, 2023

[click me]

6. Gamma-valerolactone (GVL) as Biofuel: Investigation of GVL Thermal Decomposition and GVL + OH Reaction

Dapeng Liu, Aamir Farooq

Combustion and Flame, 2023

[click me]

7. Pressure Hydrogen Oxy-combustion in the Presence of High Levels of H₂O and CO₂

Ashkan Beigzadeh, Mohammed Alabbad, Dapeng Liu, ... ,Eric Croiset,Aamir Farooq.

Combustion and Flame, 2022

[click me]

8. The effect of hydrogen bonding on the reactivity of OH radicals with prenol and isoprenol: a shock tube and multi-structural torsional variational transition state theory study
Mohamed, Samah Y., Manuel Monge-Palacios, ... , Dapeng Liu, Aamir Farooq, S. Mani Sarathy.
Physical Chemistry Chemical Physics, 2022 [click me]
9. Investigation of cyclohexene thermal decomposition and cyclohexene + OH reactions
Dapeng Liu, Aamir Farooq
Combustion and Flame, 2022 [click me]
10. Investigation of the kinetics of conjugated diolefins using UV absorption spectroscopy
Dapeng Liu, Aamir Farooq
Proceedings of the Combustion Institute, 2022 [click me]
11. Reaction Kinetics of OH Radicals with 1,3,5-Trimethyl Benzene: An Experimental and Theoretical Study
Dapeng Liu, Binod R. Giri, Tam V.-T. Mai, Lam K. Huynh, Aamir Farooq
Proceedings of the Combustion Institute, 2022 [click me]
12. A comprehensive study on low-temperature oxidation chemistry of cyclohexane. II. Experimental and kinetic modeling investigation
Jiabiao Zou, Hanfeng Jin, Dapeng Liu, ..., Yuyang Li
Combustion and Flame, 2021 [click me]
13. Symmetric ethers as bioderived fuels: Reactivity with OH radicals
Myriam Belmekki, Binod R Giri, Dapeng Liu, Aamir Farooq
Energy and Fuels, 2021 [click me]
14. First aromatic ring formation by the radical-chain reaction of vinylacetylene and propargyl
Hanfeng Jin, Lili Xing, Dapeng Liu, Junyu Hao, Jiuzhong Yang, Aamir Farooq
Combustion and Flame, 2021 [click me]
15. On the Redox Reactions between Allyl Radicals and NO_x
Dapeng Liu, Milán Szőri, Béla Viskolcz, Et-touhamiEssbar, Binod Giri, Aamir Farooq
Proceedings of the Combustion Institute, 2020 [click me]
16. Kinetics and Thermochemistry of Cyclichexadienes Reactions with OH Radicals
Dapeng Liu, Milán Szőri, Béla Viskolcz, Lam K. Huynh, Binod Giri, Aamir Farooq
Proceedings of the Combustion Institute, 2020 [click me]
17. High Temperature Branching Ratio of Acetaldehyde + OH Reaction
Dapeng Liu, Binod Giri, Aamir Farooq
Proceedings of the Combustion Institute, 2020 [click me]
18. A high temperature shock tube study of phenyl recombination reaction using laser absorption spectroscopy
Hanfeng Jin, Dapeng Liu, Binod Giri, Aamir Farooq
Proceedings of the Combustion Institute, 2020 [click me]
19. Chemical kinetics of hydroxyl reactions with cyclopentadiene and indene
Hanfeng Jin, Dapeng Liu, Jiabiao Zou, Junyu Hao, Can Shao, Mani Sarathy, Aamir Farooq
Combustion and Flame, 2020 [click me]
20. Insights into the Reactions of Hydroxyl Radical with Diolefins from Atmospheric to Combustion Environments
Fethi Khaled, Binod Giri, Dapeng Liu, Emmanuel Assaf, Christa Fittschen, Aamir Farooq
The Journal of Physical Chemistry A, 2020 [click me]

21. QCL-Based Dual-Comb Spectrometer for Multi-Species Measurements at High Temperatures and High Pressures
Guangle Zhang, Raphael Horvath, Dapeng Liu, Markus Geiser, Aamir Farooq
Proceedings of the Combustion Institute, 2020 [click me]
22. A mid-infrared diagnostic for benzene using a tunable difference-frequency-generation laser
Mohammad Khaled Shakfa, Mhanna Mhanna, Hanfeng Jin, Dapeng Liu, Khalil Djebbi, Marco Marangoni, Aamir Farooq
Sensors, 2020 [click me]
23. Cyclic Ketones as Future Fuels: Reactivity with OH Radicals (journal cover paper)
Dapeng Liu, Binod Giri, Aamir Farooq
The Journal of Physical Chemistry A, 2019 [click me]
24. A shock tube kinetic study on the branching ratio of methanol + OH reaction
Dapeng Liu, Binod Giri, Aamir Farooq
Proceedings of the Combustion Institute, 2018 [click me]
25. A theoretical and shock tube kinetic study on hydrogen abstraction from phenyl formate
Hongbo Ning, Dapeng Liu, Junjun Wu, Liuhao Ma, Wei Ren, Aamir Farooq
Physical Chemistry Chemical Physics, 2018 [click me]
26. H-Abstraction by OH From Large Branched Alkanes: Overall Rate Measurements and Site-Specific Tertiary Rate Calculations
Dapeng Liu, Fethi Khaled, Binod Giri, Emmanuel Assaf, Christa Fittschen, Aamir Farooq
The Journal of Physical Chemistry A, 2017 [click me]

ORAL PRESENTATION

1. A shock tube kinetic study on the reaction of 1,3 and 1,4-cyclohexadiene + OH (oral presentation)
Dapeng Liu, Binod Giri, Milán Szőri, Béla Viskolcz, Lam K. Huynh, Aamir Farooq
38th international symposium on combustion, 2021, Adelaide, Australia [click me]
2. On the Redox Reactions between Allyl Radicals and NO_x (oral presentation)
Dapeng Liu, Binod Giri, Milán Szőri, Béla Viskolcz, Aamir Farooq
38th international symposium on combustion, 2021, Adelaide, Australia [click me]
3. High Temperature Branching Ratio of Acetaldehyde + OH Reaction (oral presentation)
Dapeng Liu, Binod Giri, Aamir Farooq
38th international symposium on combustion, 2021, Adelaide, Australia [click me]
4. A shock tube kinetic study on Branching Ratio of Methanol + OH Reaction (best poster award)
Dapeng Liu, Binod Giri, Aamir Farooq
KAUST Research Workshop: Physics of Turbulent Combustion, 2019, Thuwal, Saudi Arabia [click me]
5. A shock tube kinetic study on the reaction of cyclopentanone/cyclohexanone + OH (oral presentation)
Dapeng Liu, Binod Giri, Aamir Farooq
The 11th U.S. National Combustion Meeting, 2019, Pasadena, U.S.A [click me]
6. A shock tube study on the branching ratios of OH + methanol (oral presentation)
Dapeng Liu, Binod Giri, Aamir Farooq
37th international symposium on combustion, 2018, Dublin, Ireland [click me]
7. High-temperature rate constant measurement for the reaction of GVL with OH (oral presentation)
Dapeng Liu, Fethi Khaled, Aamir Farooq
11th Asia-Pacific Conference on Combustion, 2017, Sydney, Australia [click me]

8. Shock Tube Rates Measurements for H-Abstraction by OH from Nine Large Alkanes (poster)

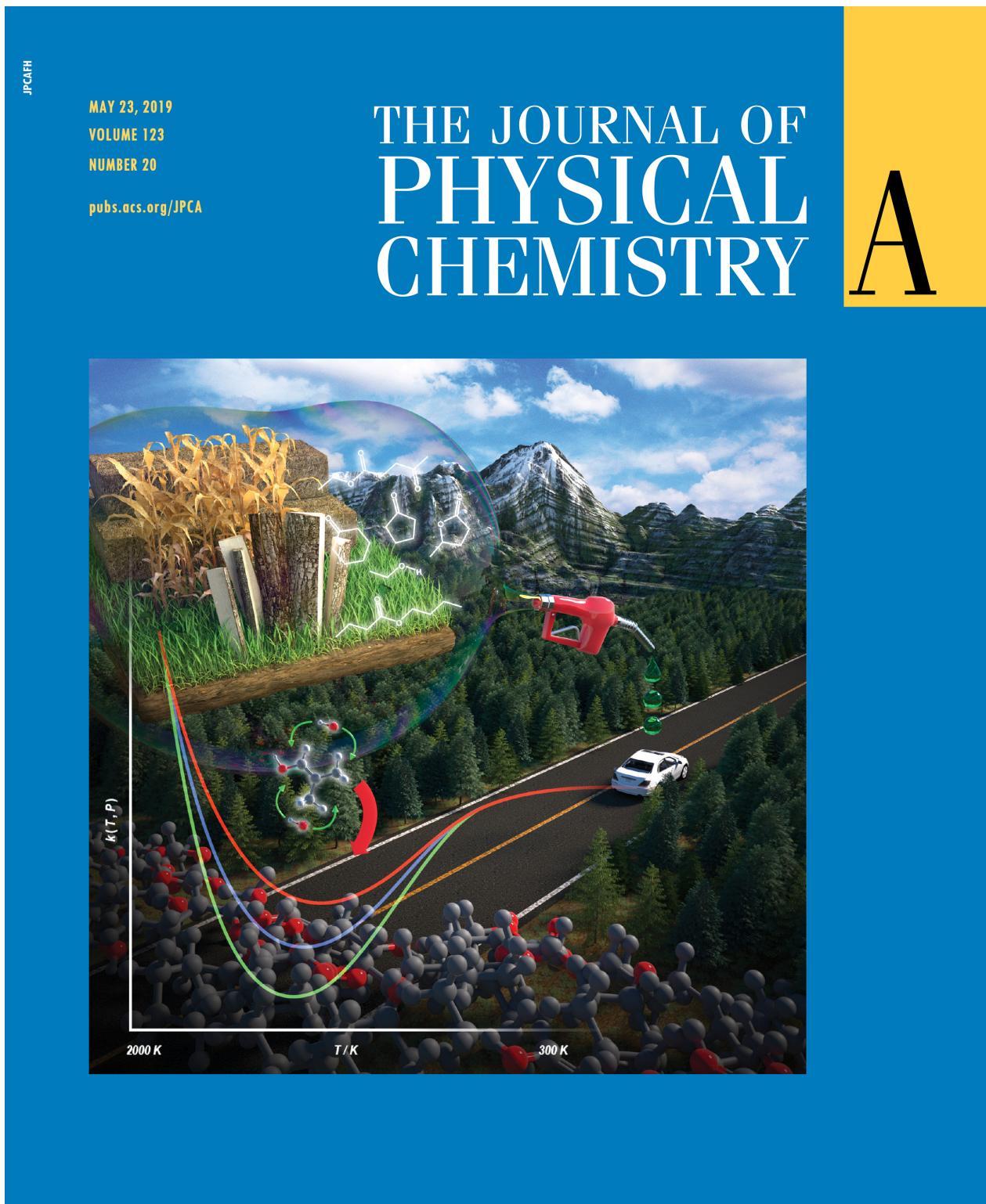
Dapeng Liu, Fethi Khaled, Binod Giri, Aamir Farooq

8th European Combustion Meet, 2017, Dubrovnik, Croatia

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PROJECT HIGHLIGHTS

Our work, "OH + Cyclic-ketone", is highlighted in journal cover JPCA, 2019



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BERNARD LEWIS FELLOWSHIP

- Dr. Dapeng Liu received Bernard Lewis Fellowship
39th International Symposium on Combustion, Vancouver

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