# Furukawa Group Seminar

### **Date**

May 17th, 2024 10:30-12:00

### Venue

Kyoto University, KUIAS iCeMS Main Building

2F Seminar Room (#A207)

## Registration



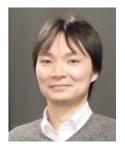
- Required from Google form (https://forms.gle/uECkBcmBG493S7nB7)
- · On-site only

### Contact

KUIAS iCeMS Furukawa Group

furukawa-g@icems.kyoto-u.ac.jp

## Molecular Chemistry in Cavity Strong Coupling

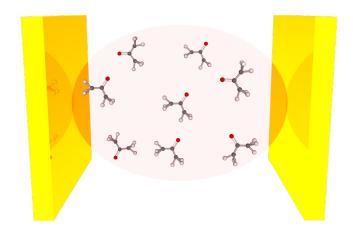


Prof. Kenji Hirai

Research Institute for Electronic Science Hokkaido University, Japan

#### Abstract

Inside an optical cavity, matter engages in energy exchange with the cavity mode. When this energy exchange exceeds losses to the environment, light and matter become hybridized, a phenomenon known as cavity strong coupling. Given the significant changes in the matter properties induced by strong coupling, it is logical to incorporate cavity strong coupling into molecular chemistry. Early investigations in this area primarily focused on the phenomenological changes in simple molecules. This talk introduces the inception of cross-disciplinary exploration into molecular assemblage with cavity strong coupling.



#### References

- [1] K. Hirai, J. A. Hutchison, H. Uji-i Chem. Rev. 2023, 123, 8099.
- [2] K. Hirai, H. Ishikawa, T. Chervy, J. A. Hutchison, H. Uji-i Chem. Sci. 2021, 12, 11986.
- [3] K. Hirai, R. Takeda, J. A. Hutchison, H. Uji-i Angew. Chem. Int. Ed. 2020, 59, 5332.

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