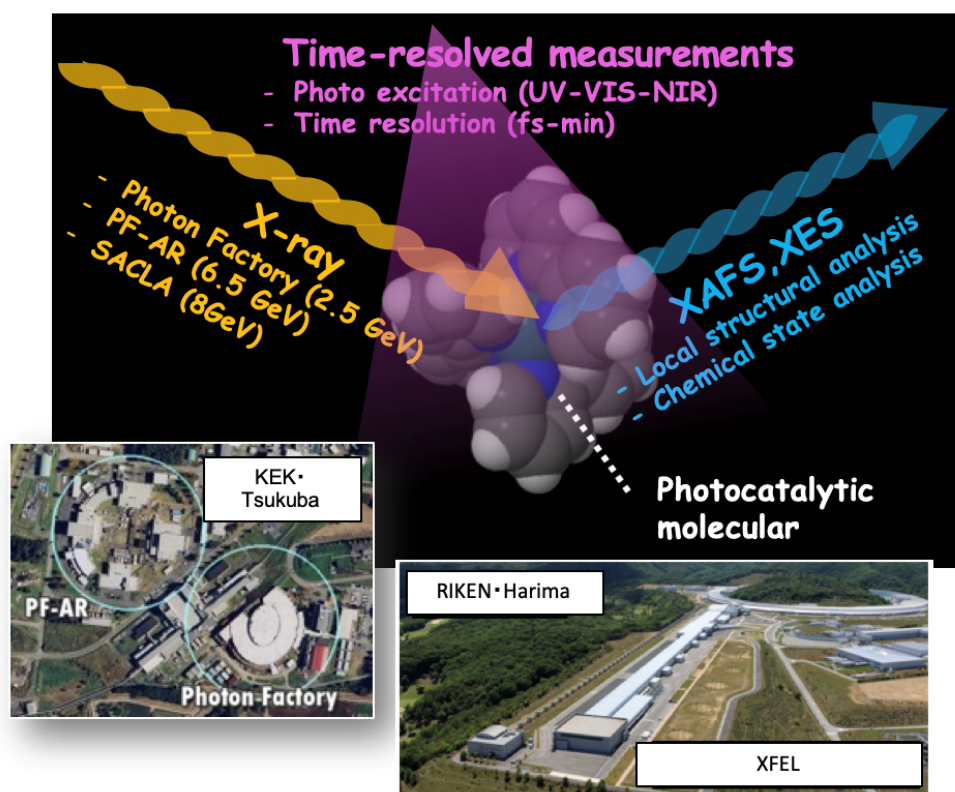


Theoretical analysis is essential to ultrafast dynamics studies using XANES and XES

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Ultrafast X-ray spectroscopy in synchrotron radiation and XFEL facilities has been developed by taking advantage of the ability to extract information on the electronic state and structure of the photoexcited state [1-5]. However, it is difficult to accurately interpret the measured XANES and XES spectra using only experimental data because it is difficult to prepare a reference sample which have the same electric state and structure as the measured unstable excited state. In the poster presentation, we will show the examples of transient changes in XANES and XES spectra in photochemical reaction processes, and discuss problems in spectral interpretation and a need of theoretical interpretation in X-ray dynamics researches.



References

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