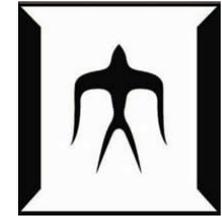


**KAIST**

**TOKYO TECH**



# Shooting a movie of rotating NO(Nitric Oxide)

**Hongjun Park**

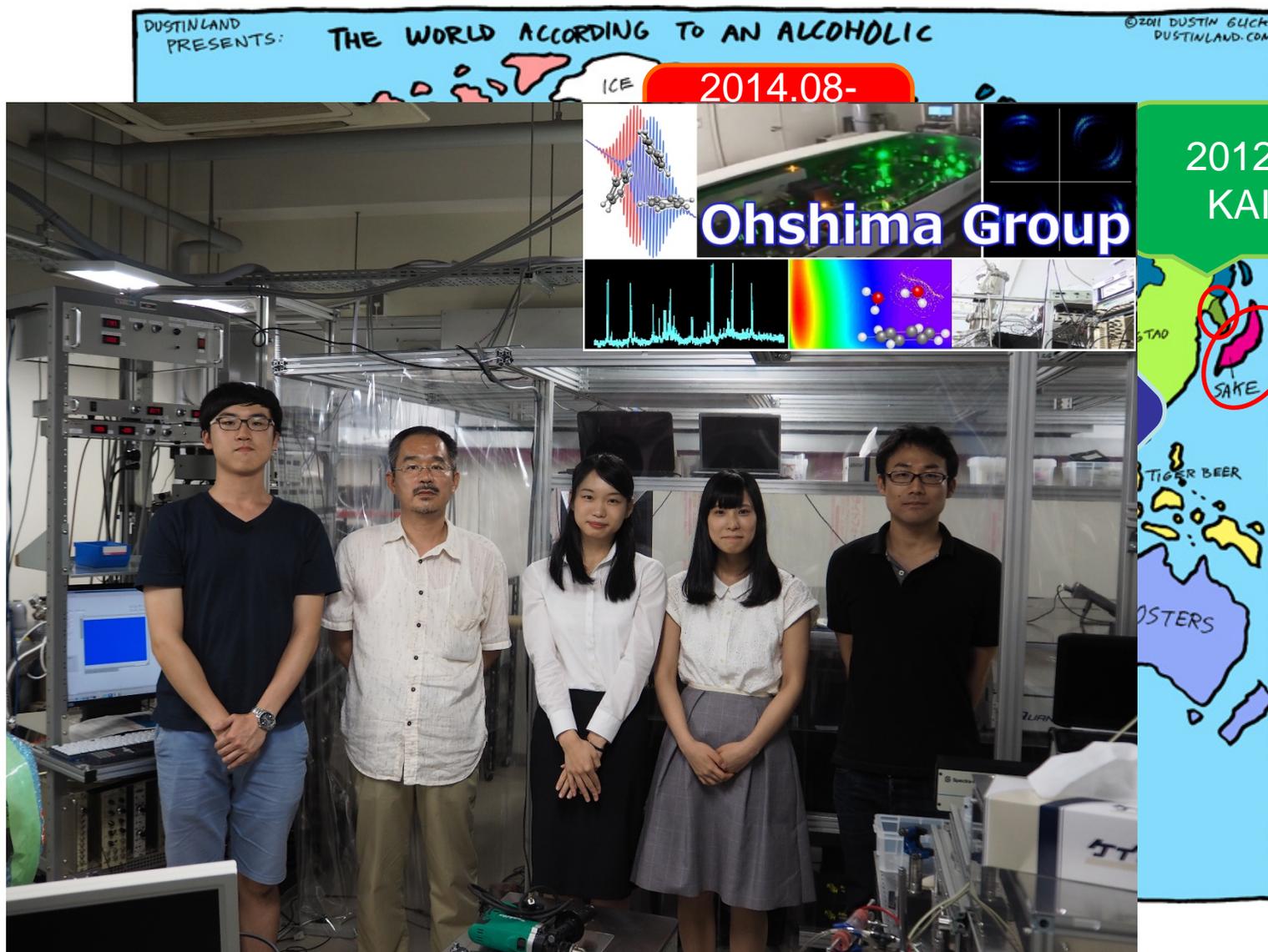
**15R55016**

**KAIST**

**Yasuhiro Ohshima**

**Department of Chemistry**

# 박홍준(朴弘俊) Hongjun Park



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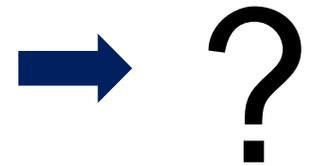
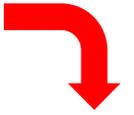
2014.08-

Ohshima Group

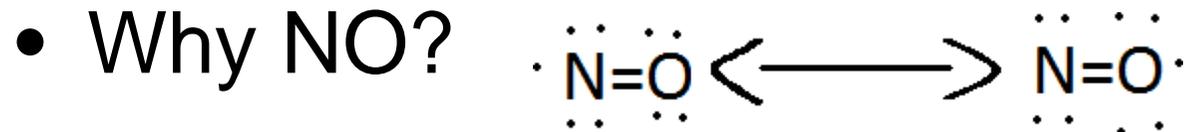
2012.02- KAIST

2015.06-08 Tokyo Tech

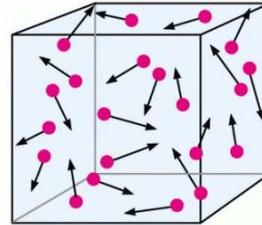




# Introduction

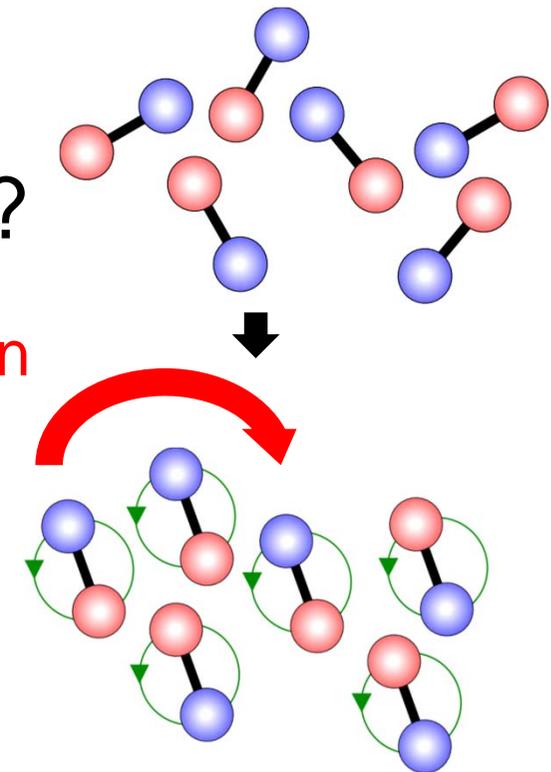


- Why rotating NO?



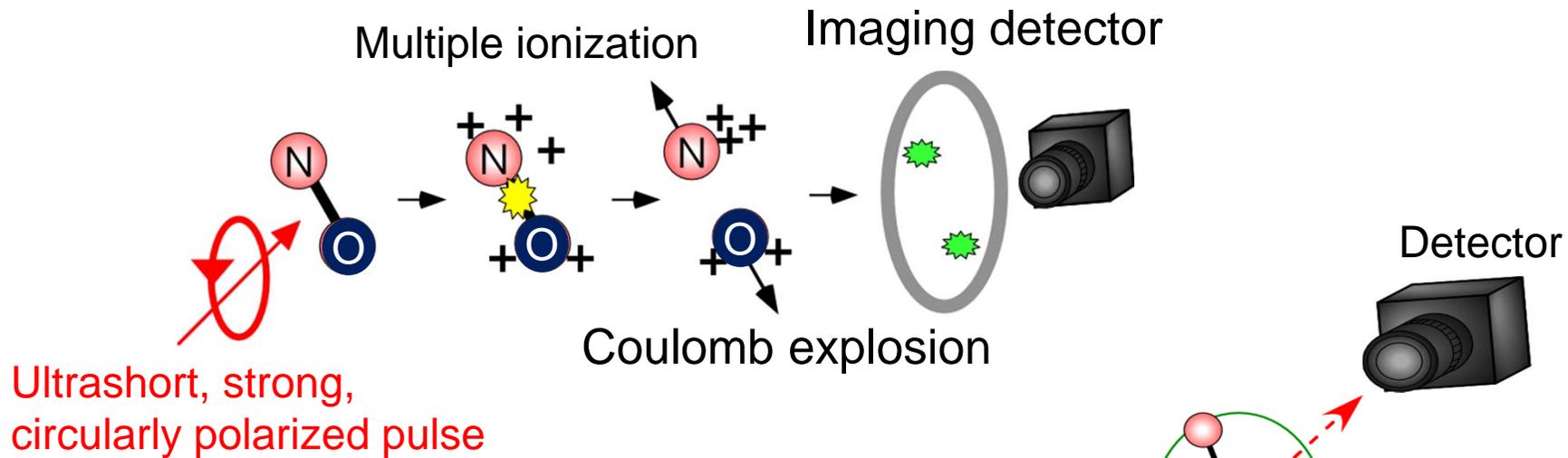
- Why controlling rotation of NO?

Control of molecular motion of interest is required.



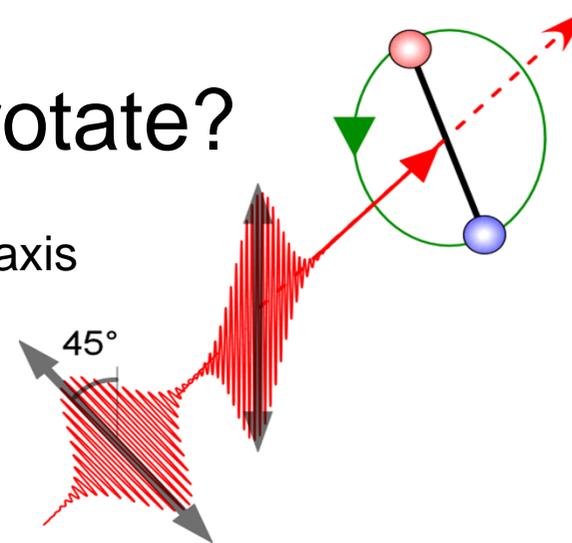
# Introduction

- Coulomb Explosion Imaging



- How to make them rotate?

Rotational axis =  
Laser propagation axis



# Conclusion

- I and Prof. Mizuse succeeded in observing real-time images of unidirectional molecular rotation of NO.
- Besides we did many trials(e.g. changing time delay, polarization, and intensity) to control rotation.

# Acknowledgement & Reference

- Thank you Prof. Ohshima and Prof. Mizuse for giving me a chance to study here Tokyo Tech.
- Thank you TKT Campus Asia program for giving me a chance to enjoy Tokyo.

## Reference

- KAIST logo: [http://www.kaist.ac.kr/html/kr/kaist/kaist\\_010205.html](http://www.kaist.ac.kr/html/kr/kaist/kaist_010205.html)
- KAIST geese: <http://jhyecheol.tistory.com/199>
- Tokyo Tech logo & seal: <http://www.titech.ac.jp/about/overview/logo/logo.html> / <http://www.titech.ac.jp/about/overview/logo/seal.html>
- World map: <http://dustinland.com/archives/archives481.html>

## Introduction

- <http://chemistry.stackexchange.com/questions/8234/where-does-the-9th-electron-go-in-a-n-o-bond>
- [http://img.bhs4.com/FD/9/FD929A12D4E974BED156946BF42C7A5D099A8A60\\_large.jpg](http://img.bhs4.com/FD/9/FD929A12D4E974BED156946BF42C7A5D099A8A60_large.jpg)
- K. Mizuse, (2015, August 13). Real-time imaging of one-way molecular rotation dynamics: Making the molecular movie. IUPAC-2015. Lecture conducted from BEXCO, Busan