

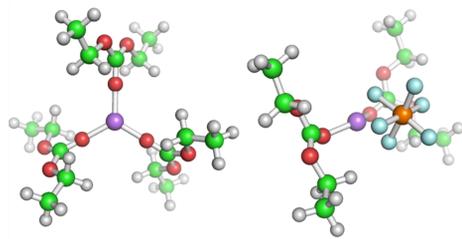
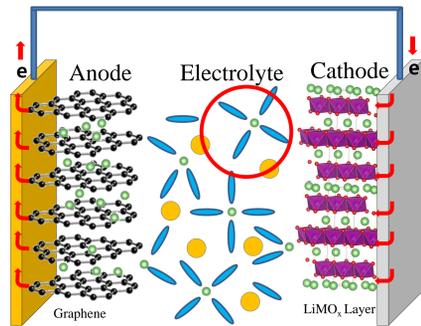
# Ultrafast Chemical Exchange Dynamics in Electrolyte of Lithium Ion Battery

Kwang-hee Park<sup>1,2</sup>, Kyung-Koo Lee<sup>3</sup>, Kyungwon Kwak<sup>\*1,2</sup> and Minhaeng Cho<sup>\*1,2</sup>

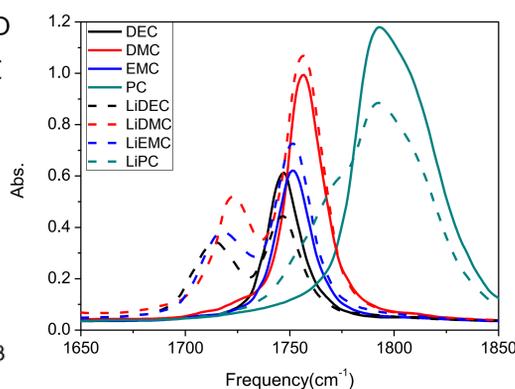
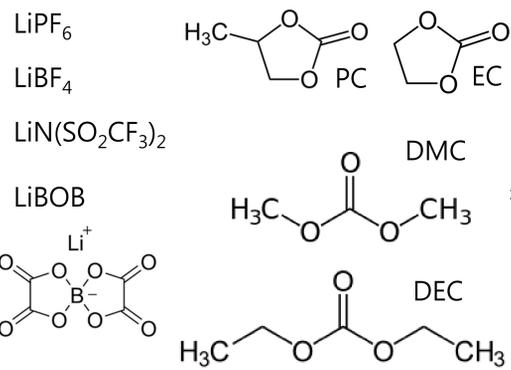
- Center for Molecular Spectroscopy and Dynamics, Institute for Basic Science (IBS)
- Department of Chemistry, Korea University
- Department of Chemistry, Kunsan National University



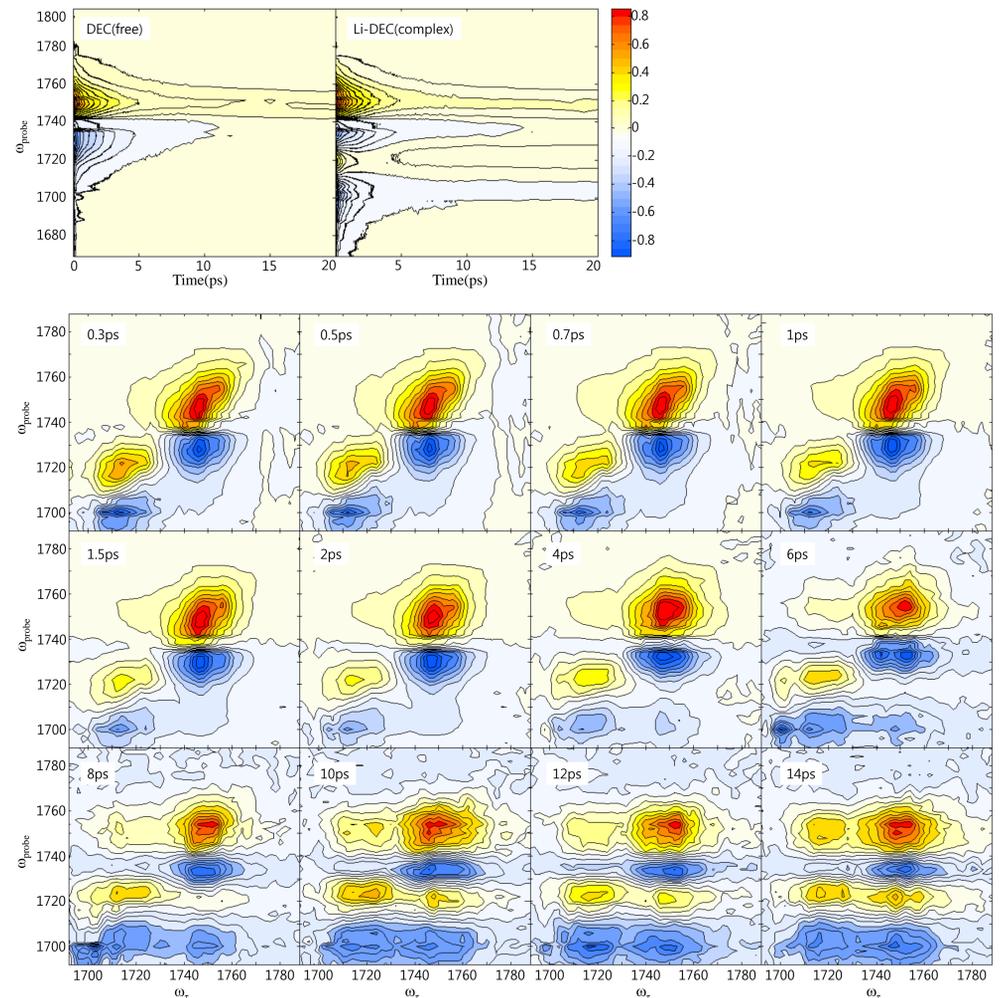
## Introduction



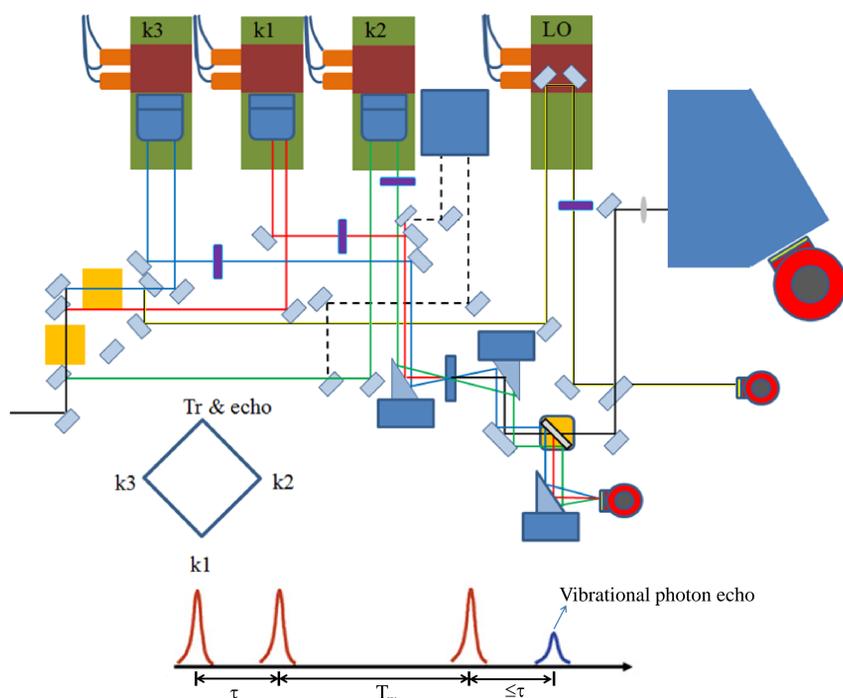
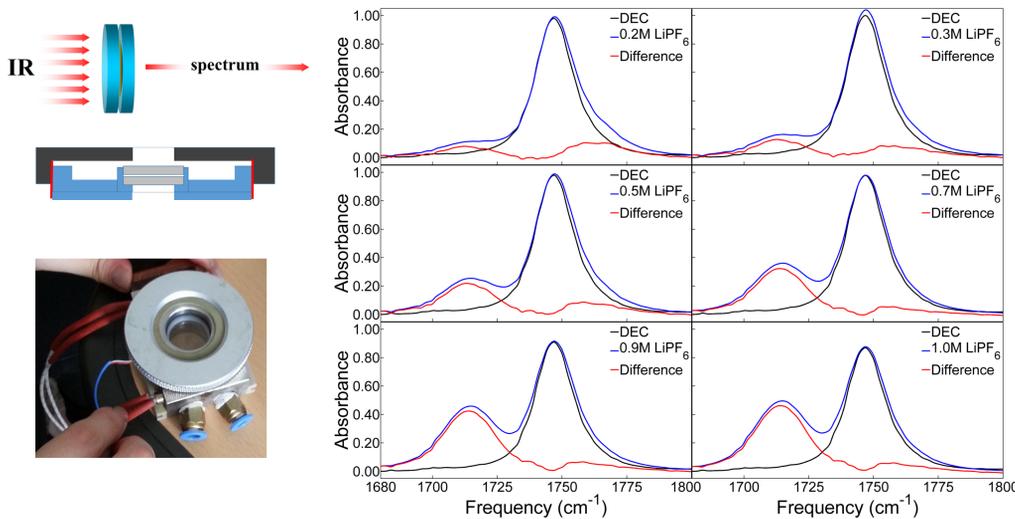
### Salt Solvent



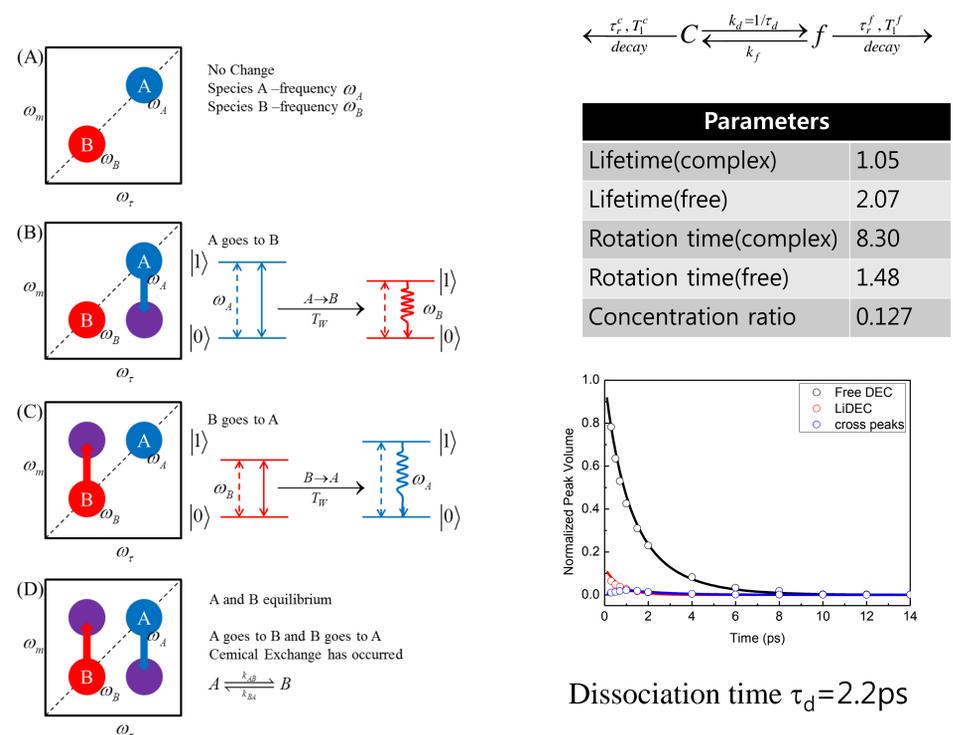
## Result



## Experimental Method



## Chemical Exchange Dynamics



## Conclusion

- 2D-IR spectrum clearly shows there are fast structural changes in solvation shell.
- In 2DIR spectra, cross peak represents the dissociation/formation of coordination between Li<sup>+</sup> ion and DEC
- Lifetime of free DEC is almost independent of LiPF<sub>6</sub> concentration

## Acknowledgment

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