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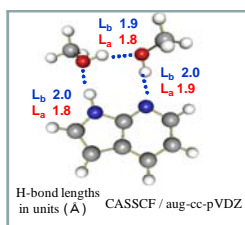
【Speciality】 Cluster Science, Photochemistry

【Keywords】 laser spectroscopy, cluster,  
excited-state dynamics

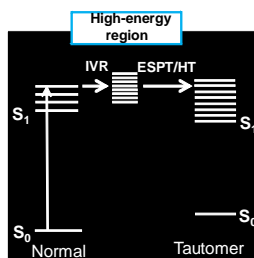
【Research Subject】 Proton and charge-transfer dynamics in molecular clusters. Investigation of origin of differences between the gas phase and condensed phase

### Research Group Activity

- Study on multiple-proton transfer dynamics

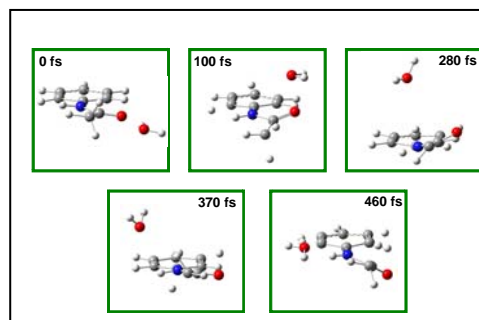


PT occurs from  $L_a$  due to strong intermolecular hydrogen bond in  $L_a$ .



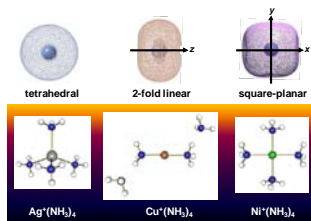
PT reaction mechanism depends on the internal energy of cluster.

- Photoinduced migration of water



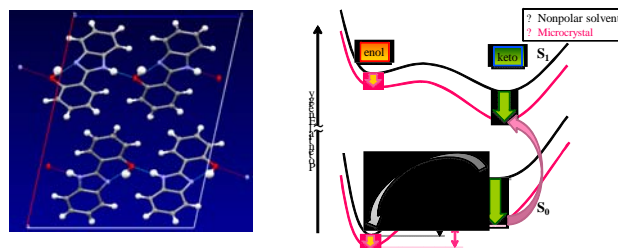
MD simulation shows that water migrates on a time scale of 500 fs.

- Infrared photodissociation spectroscopy of solvated metal ions



Coordination structure strongly depends on the d-electron configuration.

- Proton and charge transfer dynamics in crystal



Intermolecular interaction in crystal remarkably changes intramolecular PT potentials.