

Martedì 18 Luglio 2023 alle ore 15:00 presso l'aula G

la Prof.ssa Haeri Lee

Dept. of Chemistry, Hannam University, Republic of Korea

terrà il seminario dal titolo:

**Stimuli-responsive Properties
of Pd(II)-based Complexes**

The manipulation of structures and functions of coordination compounds through external stimuli has been a crucial approach for stabilizing reactants, catalysis, and drug delivery systems. Among various stimuli, such as pH, temperature, electrochemical or chemical input, light-triggered supramolecular systems offer numerous advantages, including reduced chemical waste production, rapid processes, and high photoconversion efficiency. The Clever group recently conducted research on chirality induction in coordination cages utilizing dithienylethene (DTE) linkers. However, the development of light-responsive supramolecules remains a highly challenging area. In this study, we present Pd₂L₄ coordination cages based on a diazocine moiety with an additional ethylene chain bridge derived from azobenzene. In contrast to azobenzene, *cis*-diazocine is a stable form that undergoes isomerization to the *trans*-form under UV irradiation. The isomerization of diazocine leads to significant dimensional changes in the molecular structures and enables size-selective guest encapsulation within the cavity of the cages.

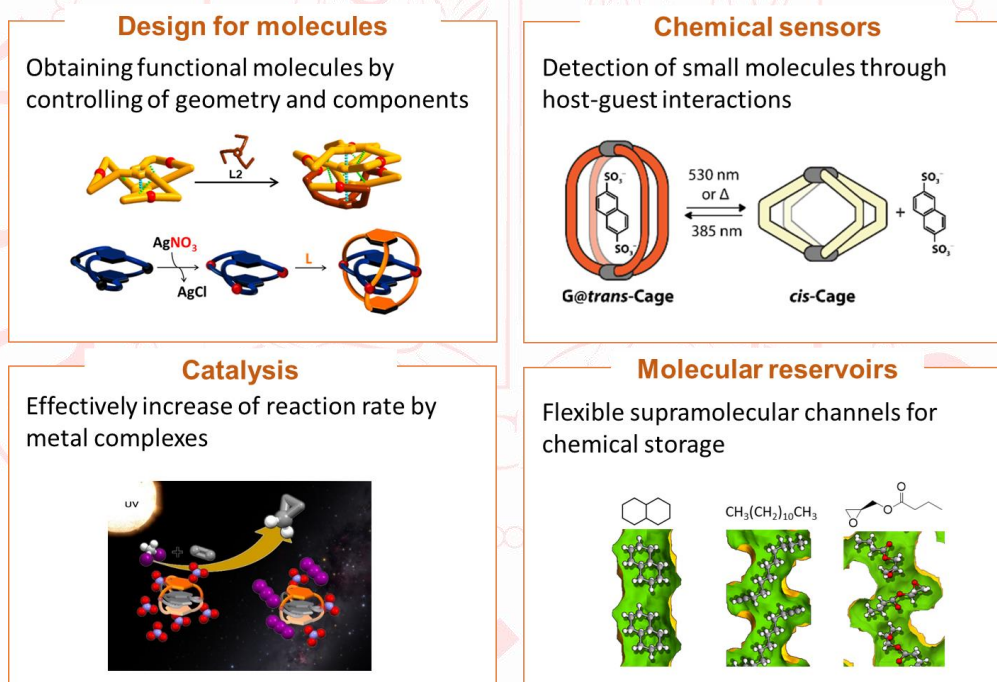


Figure 1. Stimuli-responsive molecular systems

- [1] H. Lee, J. Tessarolo, D. Langbehn, A. Baksi, R. Herges, G. H. Clever, *J. Am. Chem. Soc.* **2022**, 144(7), 3099-3105.
[2] G. H. Clever, S. Tachiro, M. Shionoya, *J. Am. Chem. Soc.*, **2010**, 132, 9973.
[3] C. Stuckhardt, D. Roke, W. Danowski, E. Otten, S. J. Wezenberg, B. L. Feringa, *Beilstein J. Org. Chem.*, **2019**, 15, 2767.

La presenza della S. V. sarà molto gradita

Dr. M. Rancan

Il Direttore del Dipartimento
Michele Maggini

1222·2022
800
ANNI



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

